REPORT RESUMES

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SYSTEM DESIGN FOR A CONTINUOUS PROGRESS SCHOOL--PART I

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THE APPLICATION OF SYSTEM ANALYSIS TO EDUCATIONAL PROBLEMS OF A CONTINUOUS PROGRESS PLAN HIGH SCHOOL WAS DESCRIBED. THIS SCHOOL SCHOOL PLAN INVOLVED A RADICAL DEPARTURE FROM THE TRADITIONAL CURRICULUM AND AN EXTENSIVE USE OF NEW MEDIA. ALTHOUGH NO FULLY IMPLEMENTED CONTINUOUS PROGRESS SCHOOL EXISTED AT THE TIME OF OF THIS REPORT, THE BRIGHAM YOUNG UNIVERSITY LABORATORY SCHOOL HAD USED PARTS OF THE PLAN AT THE ELEMENTARY SCHOOL, JUNIOR HIGH SCHOOL, AND HIGH SCHOOL LEVELS. THE BASIC CONTENT OF THIS REPORT CAME FORM INTERVIEWS WITH DR. EDWIN READ (WHO DEVELOPED THE CONTINUOUS PROGRESS SCHOOL PLAN) AND MEMBERS OF HIS STAFF AT THE BRIGHAM YOUNG UNIVERSITY LABORATORY SCHOOL. FLOW DIAGRAMS THAT WERE DEVELOPED FOLLOWING THE INTERVIEWS WERE ALSO INCLUDED IN THE REPORT. TOPICS COVERED WERE (1) AN OVERVIEW OF THE CONTINUOUS PROGRESS SCHOOL, (2) STUDENT MOVEMENT THROUGH THE SCHOOL, (3) PREREGISTRATION AND REGISTRATION PROCEDURES, (4) COURSE WORK IN LANGUAGE ARTS AND SPEECH, AND (5) SPECIAL ACADEMIC FUNCTIONS OF TEST SCORING AND INTERPRETATION. RELATED REPORTS ARE ED 010 562 THROUGH ED 010 564. (AL)

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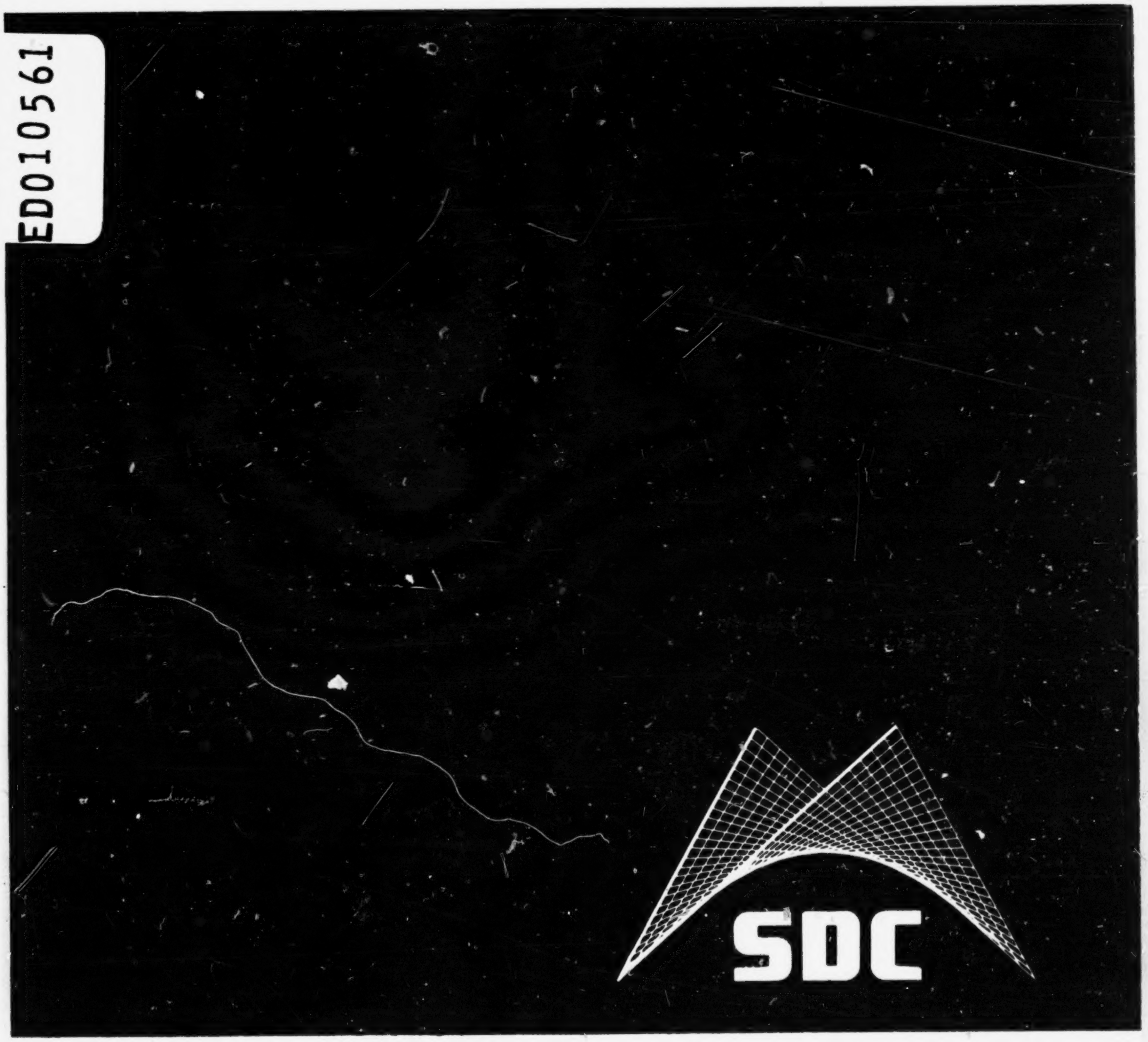

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System Design for a Continuous Progress School:

Part I

28 February 1964

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TECHNICAL MEMORANDUM

(TM Series)

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System Design for a Continuous Progress School: Part I

by

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28 February 1964
(Principal Investigator, David G. Ryans)

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TABLE OF CONTENTS

Page

BACKGROUND 7

Organization of the Report. 7
Symbolic Designations in the Flow Diagrams. 8

OVERVIEW OF THE CONTINUOUS PROGRESS SCHOOL 8

Organization of the Continuous Progress School. 9
Major Aspects of Information Flow. 9

GENERALIZED PICTURE OF STUDENT PROGRESS THROUGH THE CONTINUOUS PROGRESS SCHOOL. 15

General Student Movement 15
Interrelationships of Student Progress, School Information Processing Center, and Other School Agencies 19

PREREGISTRATION 23

Special Conventions Observed 23
Overview of Preregistration 24
Development of Derived Scores 24
General Procedures for Setting Student Expectancies. 29

REGISTRATION 33

Overview of Registration 33
Assignment to Classes 37
Student Acceptance of Expectancies 37
Setting Expected Unit and Course Completion Dates 43
Distribution of Registration Information. 47
Issuing of Course Materials 47
Discussion. 47

COURSE WORK 53

LANGUAGE ARTS COURSE WORK 57

Introduction to Language Arts Course 57
Formation of Groups 61
Work-Study Skills 61
Grammar 65
Literature 69

COURSE WORK--SPEECH 75

Summary and Discussion 79

SPECIAL ACADEMIC PROCEDURES 80

Testing 80
Test Administration 80
Test Scoring 83
Test Interpretation and Recording 83
Discussion 89
Termination Block for a Unit or Course 89
The Help Sequence 93
Surveillance and Detection System Examination for Graduation . . . 97
Discussion 97

LIST OF ILLUSTRATIONS

Figure Page

1 ORGANIZATION CHART FOR CONTINUOUS PROGRESS SCHOOL 11

2 INFORMATION FLOW IN A CONTINUOUS PROGRESS SCHOOL 13

3 GENERAL FLOW DIAGRAM DEPICTING STUDENT PROGRESS THROUGH SCHOOL 17

4 GENERALIZED DESCRIPTION, VIA MODIFIED FLOW DIAGRAM, OF RELATIONSHIP BETWEEN STUDENT, INFORMATION PROCESSING CENTER, AND OTHER SCHOOL AGENCIES 21

5 PREREGISTRATION 25

6 DEVELOPMENT OF DERIVED SCORES 27

7 GENERAL PROCEDURES FOR SETTING STUDENT EXPECTANCIES 31

8 REGISTRATION 35

9 ASSIGNMENT TO COURSES AND TEACHERS 39

10 STUDENT ACCEPTANCE OF EXPECTANCIES 41

11 SETTING EXPECTED UNIT AND COURSE COMPLETION DATES 45

12 DISTRIBUTION OF REGISTRATION INFORMATION 49

13 ISSUING OF COURSE MATERIALS 51

14 PROGRESS THROUGH A TYPICAL CONTINUOUS PROGRESS SCHOOL COURSE 55

15 INTRODUCTION TO LANGUAGE ARTS COURSE 59

16 WORK-STUDY SKILLS 63

17 GRAMMAR 67

18 LITERATURE 71

19 SPEECH 77
20 TESTING 81
21 TEST SCORING 85
22 TEST INTERPRETATION AND RECORDING 87
23 TERMINATION BLOCK FOR A UNIT OR COURSE 91
24 THE HELP SEQUENCE 95
25 SURVEILLANCE AND DETECTION EXAMINATION FOR GRADUATION 99

SYSTEM DESIGN FOR A CONTINUOUS PROGRESS SCHOOL: PART I

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PREFACE

Stemming from an interest in applying techniques of system analysis to educational problems, System Development Corporation sought and obtained support from The Educational Media Branch of the United States Office of Education for a plan for seeking "New Solutions to Implementing Instructional Media through Analysis and Simulation of School Organization" (Egbert, 1963).

The first phase of the activities covered by the Educational Media Branch grant involves description and analysis of the operation of five high schools. Because of its radical departure from the traditional and its extensive use of new media, the Continuous Progress School was selected as one of the schools to be studied.

This is the first of a series of reports on the system analysis of the Continuous Progress Plan High School.

A fully implemented Continuous Progress Plan High School does not exist but is in the process of being developed. In 1959, Dr. Edwin Read, Director of the Brigham Young University Laboratory School, developed the plan and introduced it into selected parts of the laboratory high school and elementary school curriculum. Since its initial inception, the plan has been further developed and tried out at the junior high school level of the laboratory school.

In addition, other educators in the United States have studied the plan and are trying to implement it in their school districts.

The study reported here closely examines the plan for the high school as it exists at the Brigham Young University Laboratory School and uses the data for system analysis and simulation to construct an explicit descriptive model of a future Continuous Progress High School.

The basic content of this report came primarily from interviews with Dr. Edwin Read and members of his staff at the Brigham Young University Laboratory School. Following these interviews, flow diagrams were developed and checked with the respective staff members.

Most of the conceptual content of the flow diagrams originated with staff members of the Brigham Young University Laboratory School. However, diagrams dealing with details of such future functions as preregistration, testing, and test interpretation include design recommendations from the system analysis for the fully implemented system.

ABSTRACT

This is the first of a series of reports on a system analysis of the Continuous Progress High School. In this initial document, after presenting a brief background, the following topics are discussed and illustrated by flow charts: An overview of the Continuous Progress School; generalized picture of student movement through the school; preregistration and registration procedures; course work in language arts and speech; and special academic functions of testing, scoring and interpretation.

SYSTEM DESIGN FOR A CONTINUOUS PROGRESS SCHOOL: PART I

BACKGROUND

In 1959, Dr. Edwin Read, Director of the Brigham Young University Laboratory School and Dr. Asahel D. Woodruff, Dean of the College of Education, began the gradual introduction of a program which they called a Continuous Progress Plan, designed to permit children to progress through a school curriculum at rates and in directions more nearly commensurate with their individual abilities and interests than do traditional programs. The Continuous Progress Plan deals primarily with such instructional problems as curriculum planning and materials development. The plan makes extensive use of small-group instruction to clarify new concepts and learning materials, both traditional and new, including programmed materials which permit each student to progress at his own rate. Students do their individual studying in carrels where they will probably spend at least 50 percent of their time (Read and Crnkovic, 1963).

In April 1962, a working arrangement was effected between Bassett School District, in eastern Los Angeles County, and Brigham Young University for planning and establishing a new high school based on the Continuous Progress Plan. When it begins operation in 1964, the Continuous Progress Plan will be used in Bassett High School in only a few curricular areas; however, as soon as materials and other factors permit, the Plan will be incorporated in the entire school.

Organization of the Report

This report is the first of a series dealing with the Continuous Progress School and includes the following sections:

Overview of the Continuous Progress School

Generalized picture of student progress through the Continuous Progress School

Activities prior to student registration

The registration process

Progress through a generalized continuous progress course

A typical language arts course

A typical speech course

Some general academic functions of the school

Symbolic Designations in the Flow Diagrams

To ensure systematic use of symbolic designations in the flow diagrams of the documents in the series, a four-position designation was developed. The first position is used to differentiate students physically present from those school operations for which the student need not be present; it may be omitted if the student does not physically participate in the activities represented by the flow diagram. The second position distinguishes among queues, activity blocks, splits, and merges. The third and fourth positions indicate the order of actions. Table 1 shows the designations used. The first column lists the position of the symbols, the second column indicates the possible symbols, and the third column shows what each symbol means.

Table 1

Activity Designations Used in the Flow Diagrams

Position	Symbol	Symbol Interpretation
1	1	Student
1	2	School
2	Q	Queue
2	A	Activity Block
2	X	Split
2	M	Merge
3&4	Digits: 0 to 99	Order of activities

OVERVIEW OF THE CONTINUOUS PROGRESS SCHOOL

To give a general impression of the similarities and differences between the Continuous Progress School and a traditional school, a suggested organizational structure of the Continuous Progress School is depicted graphically in Figures 1 and 2. Figure 1 is a typical organization chart showing the relationship between the school administration and the various departments. Figure 2 summarizes the information flow within the school, emphasizing the central role of the Information Processing Center.

Organization of the Continuous Progress School

At the far left of Figure 1 are the academic departments, each with a department head responsible for instruction, course testing, and the secretarial support for the department.

Next to the academic departments is the Materials Center, a very important part of the Continuous Progress School. Here are housed the bookstore; such equipment as movie projectors and tape recorders, and the related films and tapes; the library; and a construction area where students, faculty, and staff can build and have built various devices and materials needed for effective course work.

The third functional unit in Figure 1 is the Information Processing Center. As is true with the Materials Center, the Information Processing Center is a much more significant part of the Continuous Progress School than of a traditional school. In the Continuous Progress School, the Information Processing Center must mediate the day-by-day scheduling of students, faculty, staff, space, and equipment in addition to the traditional functions of attendance, grades, and general pupil records. This requires the acceptance, processing and reporting of a great quantity and variety of information--information provided by the school administration, the academic departments, the Materials Center, the Counseling Service, and by the students themselves. To handle these data, modern methods and equipment will be required: in a fully implemented, effectively functioning Continuous Progress School, a stored-program computer will probably be essential.

Next to the Information Processing Center is the Counseling Service, which also plays a more important role in a Continuous Progress School than it does in a traditional school. The increased role of the Counseling Service results primarily from the flexibility of the program. Student progress is largely self-determined. This will result in varying degrees of progress among students and more frequent consideration and re-evaluation of student programs; hence, a greater degree of individual guidance will be required with a greater demand on the Counseling Service.

Several other essential supporting functions are illustrated in Figure 1: food service, transportation, buildings and grounds, and business administration. (Responsibility for these functions may be at the district rather than at the school level.)

Major Aspects of Information Flow

Since Figure 2 illustrates some of the major aspects of information flow in the Continuous Progress School, the Information Processing Center occupies the central position. Information flow is shown as moving toward or away from this Center.

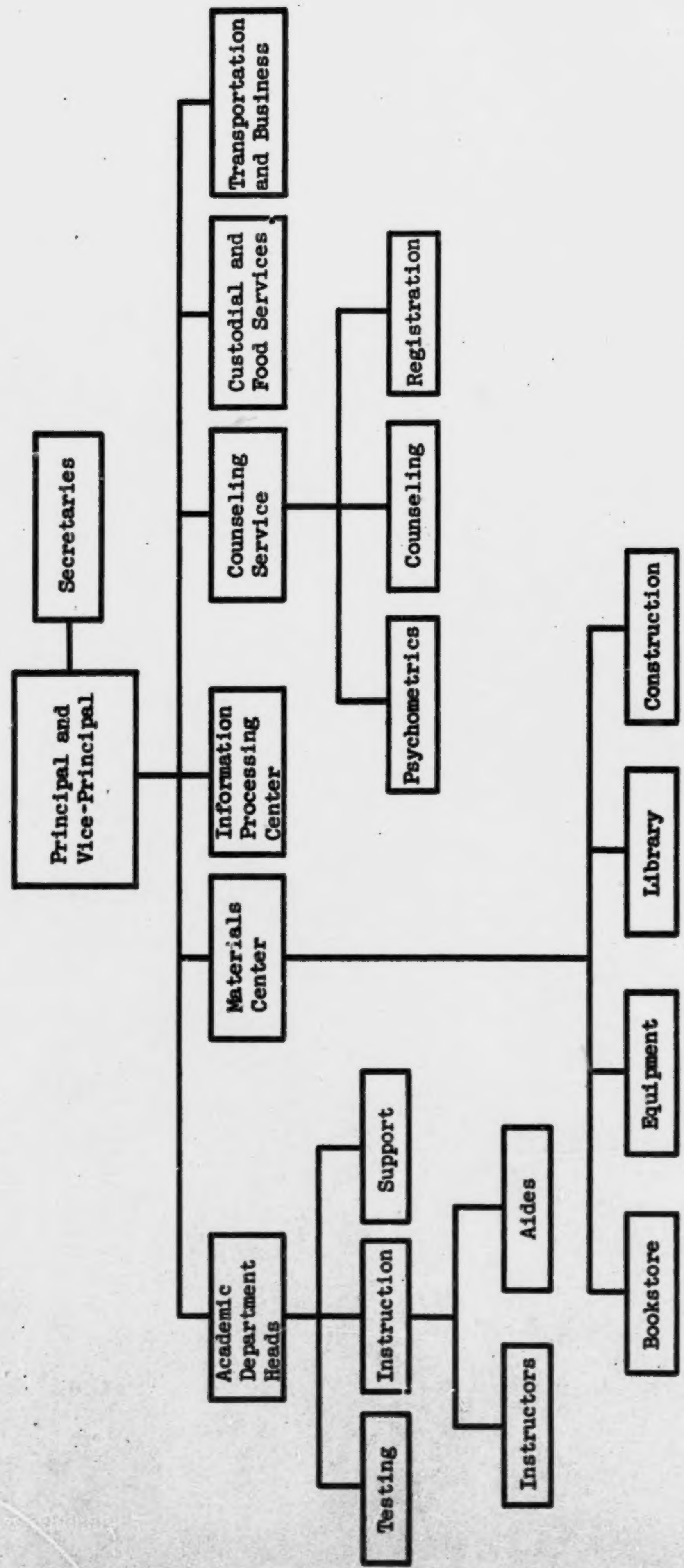
Principal and Vice-Principal
Secretaries
Academic Department Heads
Materials Center
Information Processing Center
Counseling Service
Custodial and Food Services
Transportation and Business
Testing
Instruction
Support
Instructors
Aides
Psychometrics
Counseling
Registration
Bookstore
Equipment
Library
Construction

Figure 1. Organization Chart for Continuous Progress School

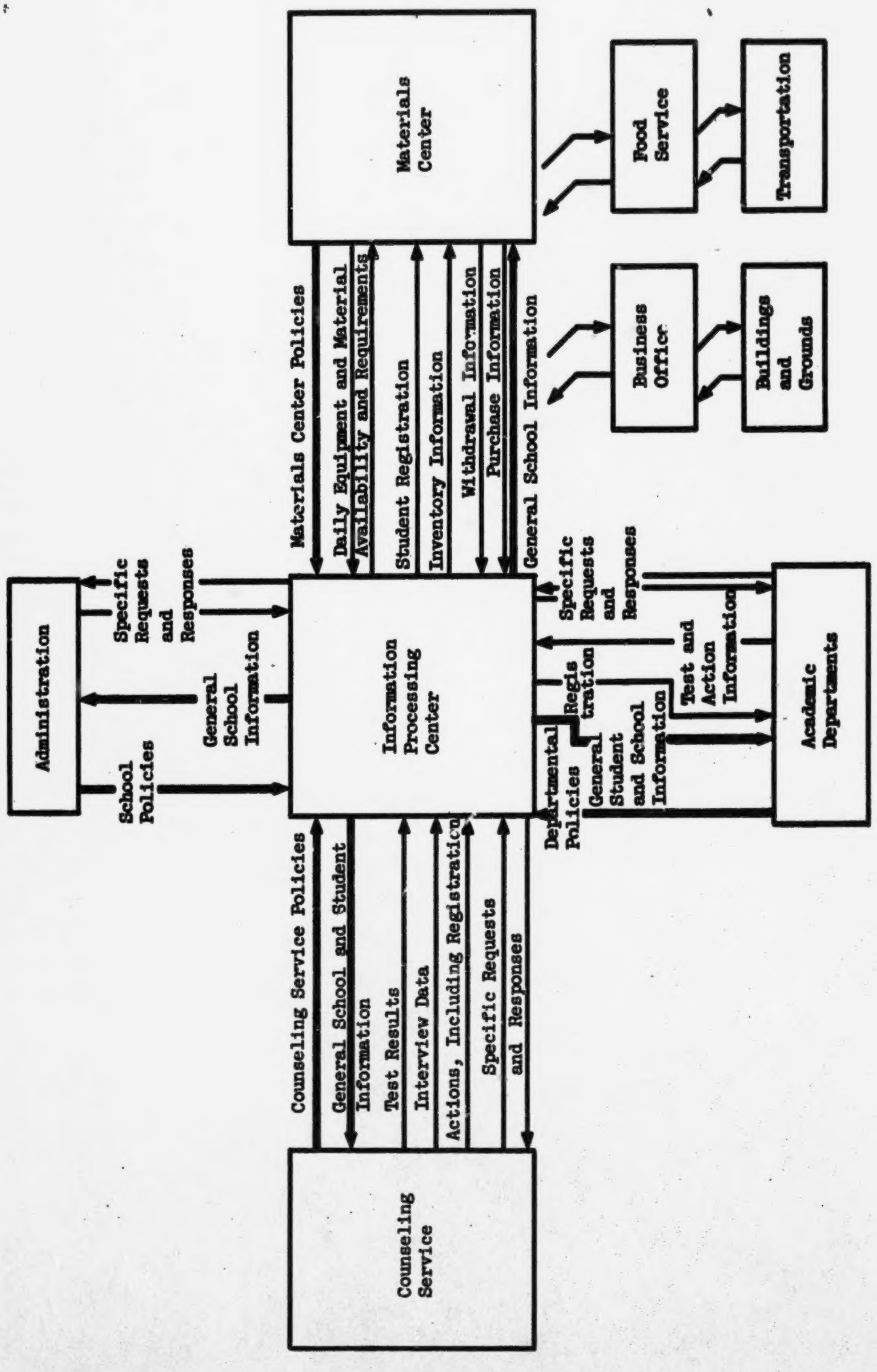
Administration
Specific Requests and Responses
General School Information
School Policies
Materials Center
Food Service
Transportation
Business Office
Buildings and Grounds
Materials Center Policies
Daily Equipment and Material Availability and Requirements
Student Registration
Inventory Information
Withdrawal Information
Purchase Information
General School Information
Information Processing Center
Specific Requests and Responses
Test and Action Information
Registration
General Student and School Information
Departmental Policies
Academic Departments
Counseling Service
Counseling Service Policies
General School and Student Information
Test Results
Interview Data
Actions, Including Registration
Specific Requests and Responses

Figure 2. Information Flow in a Continuous Progress School

In addition to the Information Processing Center, this report also emphasizes the roles of administration, the academic departments, the Counseling Service, and the Materials Center. Heavy directional lines, labeled "policy" are shown as moving from each of these to the Information Processing Center to show that the policies of its users determine much of the nature of the programming and other activities of the Center.

The heavy directional lines moving away from the Center indicate periodic reports which summarize information over time, show the general status of the school, and permit study of trends.

The flow of detailed information and of specific requests and responses is shown by the narrow directional lines which represent most of the day-by-day flow of information to and from the Center.

In the lower right-hand corner are the supporting functions of the business office, food service, buildings and grounds, and transportation.

GENERALIZED PICTURE OF STUDENT PROGRESS THROUGH THE CONTINUOUS PROGRESS SCHOOL

General Student Movement

In the flow diagram in Figure 3 the student is depicted as entering the school (1A0), registering (1A02), and working on his courses (1A03). At split 1X04, those students who need help (Branch A, 1Q05) receive it (1A05) and those who are ready for the final examination (Branch B, 1Q08) take it (1A08). Following receipt of help (1Q06)--defined generically to include help from an aide, a teacher, a counselor or an administrator--a student is ready either to return to his studies, A, or to leave school, B to 1Q07 and 1A07.

At the split following the final examination (1X09) there are four alternatives: C if the student needs help, A if he needs to do more work on this course, B if he is ready to register for another course, and D if he is ready for graduation.

Despite the general nature of Figure 3, it does illustrate one very important difference between the Continuous Progress School and a traditional school which is apparent with the variety of choices available at 1X09. Here the student--on an individual basis, not just as one of a large group--has four different alternatives available to him. The "correct" alternative is dependent on his own performance and his place in the program.

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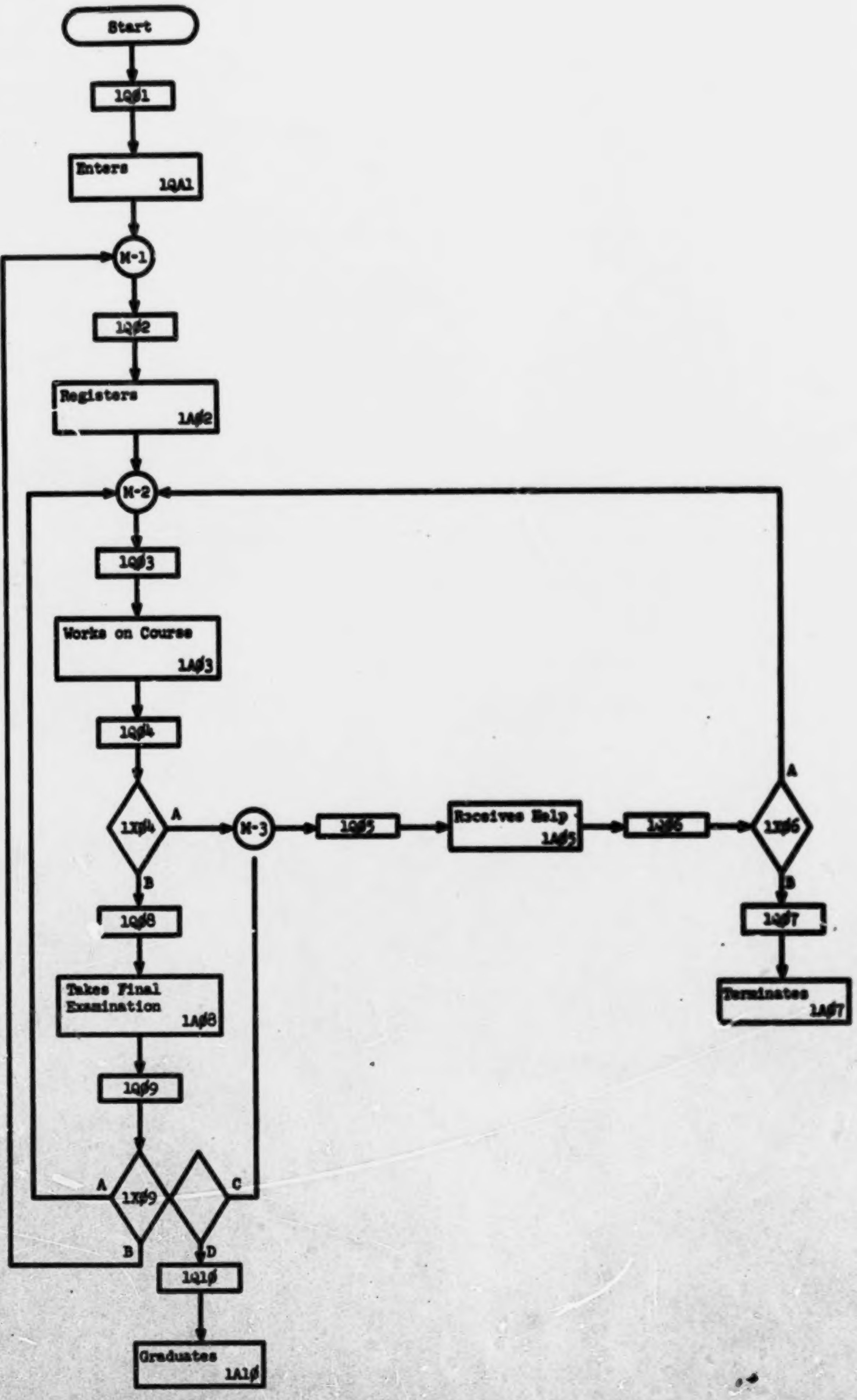
Start
1Q01
Enters
1QA1
M-1
1Q02
Registers
1A02
M-2
1Q03
Works on Course
1A03
1Q04
1X04
A
B
M-3
1Q05
Receives Help
1A05
1Q06
1X06
A
B
1Q07
Terminates
1A07
1Q08
Takes Final Examination
1A08
1Q09
1X09
A
B
C
D
1Q10
Graduates
1A10

Figure 3. General Flow Diagram Depicting Student Progress Through School

Interrelationships of Student Progress, School Information Processing Center, and Other School Agencies

Figure 4 shows the interrelationship between the student, the Information Processing Center (IPC) and other school agencies. The left hand column closely parallels Figure 3; the middle column shows activities of the IPC; and the right hand column shows how other school agencies fit into the picture.

When a student applies to the Continuous Progress School (1A01), his application goes (1) to the IPC. If the student needs further tests, A, he is tested (1A03) by a psychometrician and the results are fed (2) into the IPC where derived scores are obtained and tentative expectancy levels are developed and sent (3) to the counselor.

When his test results are available to the counselor, the student is summoned so that they may be interpreted for him (1A04). The counselor then assists the student to register (1A05), and the registration information is forwarded to the IPC (4). In the meantime, the IPC has received information on space available from the building manager (5), on personnel from the academic department heads (6), and on equipment and materials from the Materials Center (7). The IPC combines this information with the daily requests from students (8) and staff into a schedule. The schedule has certain stability but does change from day to day to accommodate the changing educational requirements of students. This schedule, including specific, daily assignments, is then sent back to the building manager (9), the academic department heads (10), the Materials Center (11), and the individual students (12).

Based on available information, the IPC also constructs and reports summaries of student data (13); develops over-all, short- and long-range staff, space, supply, and equipment needs (14); and makes and reports such periodic summaries as "number of students registering for Algebra II in a given week" (15).

Following registration (1A05), the student works on courses and pursues other activities (1A06). During the time that he is working on courses, his (16) progress is checked to determine whether it is what might reasonably be expected from him. If the IPC Surveillance and Detection System (S&DS)[1] determines that the student needs help, he (16) and the counselor (17) are told.

---

[1] The Surveillance and Detection System is a subsystem of the IPC which conducts periodic reviews of student performance, compares actual performance with that expected, and alerts responsible officials to any major discrepancies. It also conducts checks to make sure that students actually carry through such assignments as picking up supplies from the Materials Center. This subsystem will be discussed in detail in a future report.

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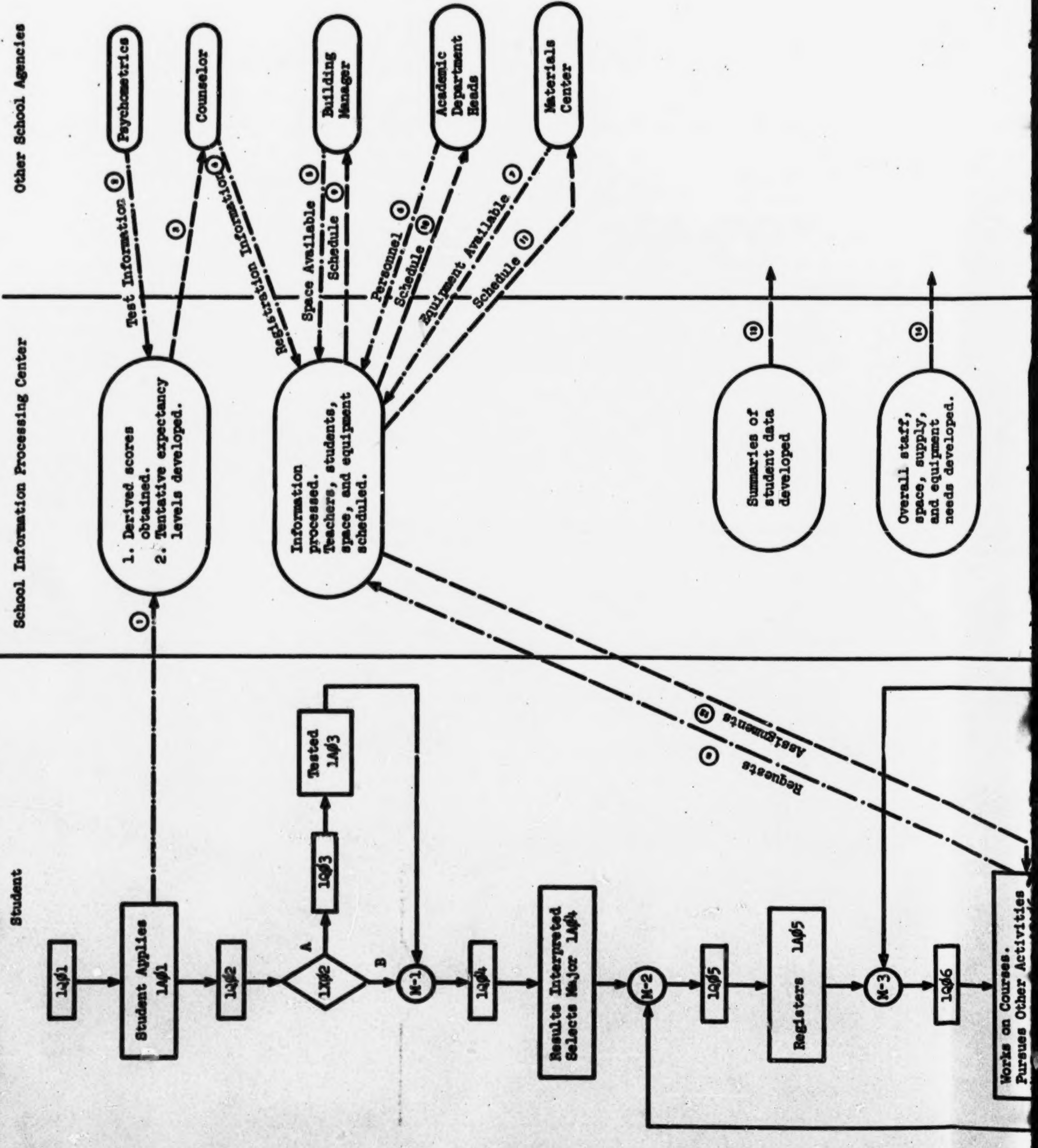

Student
School Information Processing Center
Other School Agencies
Psychometrics
Counselor
Building Manager
Academic Department Heads
Materials Center
Test Information ②
③
Registration Information ④
Space Available ⑤
Schedule ⑨
Personnel ⑥
Schedule ⑩
Equipment Available ⑦
Schedule ⑪
1. Derived scores obtained.
2. Tentative expectancy levels developed.
Information processed. Teachers, students, space, and equipment scheduled.
Summaries of student data developed
⑬
Overall staff, space, supply, and equipment needs developed.
⑭
①
Assignments ⑫
Requests ⑧
Tested 1A03
1Q03
1Q01
Student Applies 1A01
1Q02
1X02
A
B
M-1
1Q04
Results Interpreted Selects Major 1A04
M-2
1Q05
Registers 1A05
M-3
1Q06
Works on Courses.
Pursues Other Activities

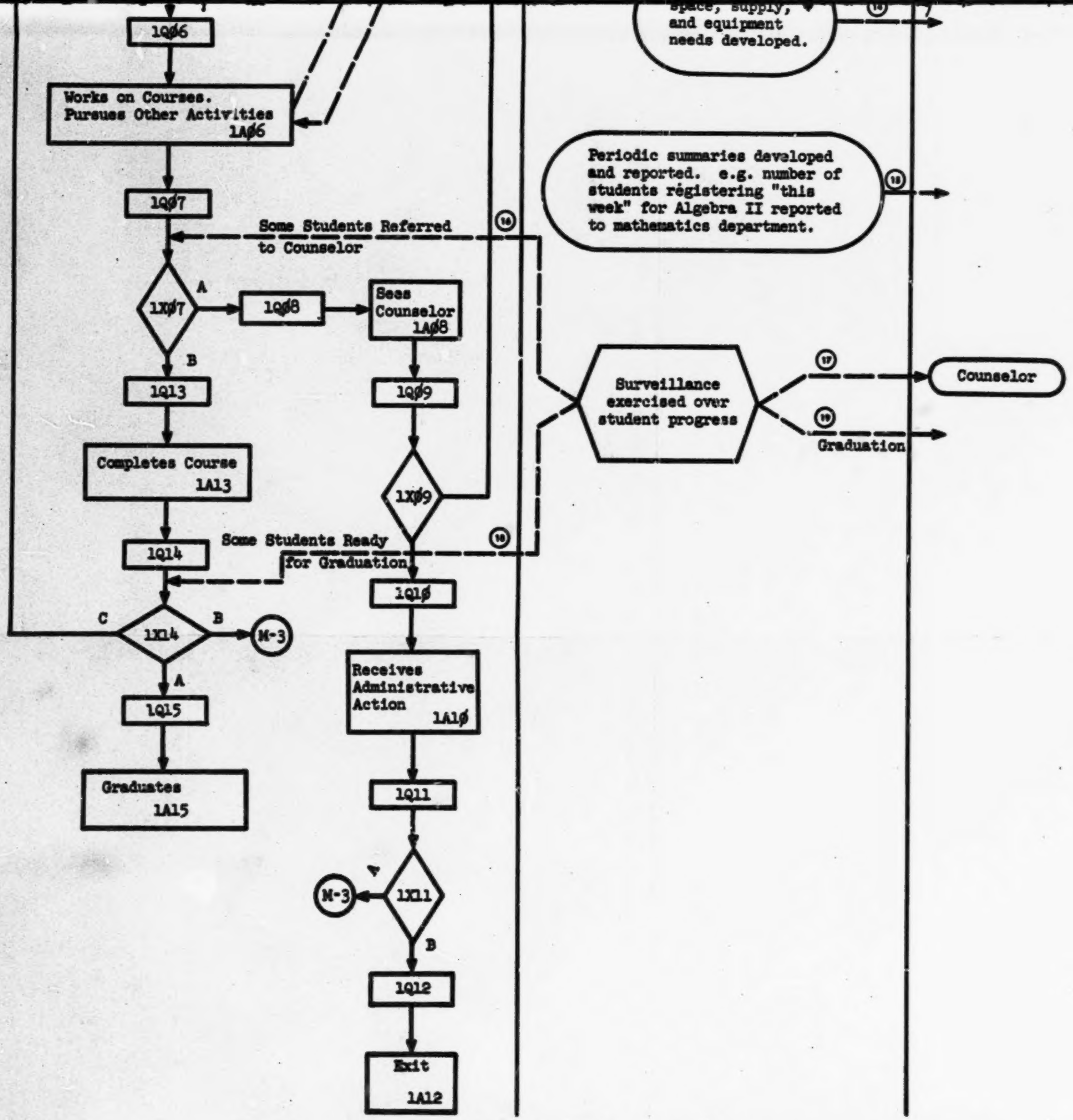

space, supply,
and equipment
needs developed.
Works on Courses.
Pursues Other Activities
1A06
1Q06
1Q07
Periodic summaries developed and reported. e.g. number of students registering "this week" for Algebra II reported to mathematics department.
Some Students Referred to Counselor
1X07
A
B
1Q08
Sees Counselor
1A08
1Q09
1X09
Surveillance exercised over student progress
Counselor
Graduation
1Q13
Completes Course
1A13
1Q14
Some Students Ready for Graduation
1Q10
C
1X14
B
M-3
A
1Q15
Graduates
1A15
Receives Administrative Action
1A10
1Q11
1X11
A
B
M-3
1Q12
Exit
1A12

Figure 4. Generalized Description, via Modified Flow Diagram, of Relationship between Student, Information Processing Center, and Other School Agencies

Students who need major help (A-1Q08) go to their counselor (1A08). If the student and counselor can solve the problem, the student returns to his normal activities, A. If the problem is not solved, B, administrative action is taken (1A10) which may result in the student returning to the system, A to M-3, or exiting from the system (1A12).

When a student completes a given course (1A13), the IPC Surveillance and Detection System determines whether he is ready for graduation. If the student has completed requirements for graduation, both he and the appropriate school officials are so informed (18, 19). If, at the end of a course, the student has completed all requirements for graduation (A to 1Q15), he is graduated (1A15). If he still has courses to finish but does not need to register for additional courses, he returns to work on the uncompleted courses (B to M-3 to 1Q05). If he should still register for additional courses, he returns to his counselor, C, and re-registers (1A05).

PREREGISTRATION

When a student applies to any school, certain activities are necessary to prepare for his enrollment and participation in the school program. In the Continuous Progress School both the extent and significance of these preregistration activities are greatly magnified and, for this reason, they receive special attention in this report. These preregistration activities are illustrated in Figures 5-7, which present a general description, development of derived scores and setting of student expectancies.

Special Conventions Observed

Any system can be viewed from several different frames of reference. For example, a factory can be studied from the standpoint of the manager, the employee, the person who provides rew materials or purchases finished products, or even from the standpoint of the plant, the equipment or the material as it moves through the plant and becomes a finished product. Obviously, different purposes are served when the system is viewed from one frame of reference rather than another. Because of the objectives sought and the problems involved, we have chosen to view this system from the standpoints both of the deciding and acting school personnel or equipment, and of the student. Thus in Figure 5 a flow diagram of the process of a student's preregistration, two strands are shown--one for the school and one for the student. In the student strand, rectangular queue and activity boxes are used. In the school strand, the boxes have rounded corners. These different shaped boxes help in keeping the student and school activities separate to permit closer examination of each. In various places the two strands parallel, feed, and control each other. For example, 1A01, representing the student applying for admission to school, feeds 2A01 in the school strand. This feeding process is indicated by a directional, dash-dot line. Somewhat farther along, activity block 2A03, in which the school requests supplemental information, is connected by a directional, solid line to 1A03. This line is intended to imply school-to-student information or control. Some other figures in this report contain arrowless, dashed lines which connect activity blocks from the two strands and indicate parallel activities.

Overview of Preregistration

Figure 5 gives an overview of preregistration activities. The student is shown first as applying for admission (1A01). The school then receives and evaluates the application (2A01). If adequate information is not available (A to 2Q03), supplemental data are requested (2A03). Students for whom more information is required (1Q03) receive requests for such information (1A03) and report for testing (1A05) and/or they and/or their parents report for an interview at the Counseling Service (1A06). Supplemental information is provided via testing and/or counseling (2A04).

When sufficient information is available, the IPC derives scores on the student (2A05), sets tentative expectancy levels (2A06), and forwards this information to the counselor (2A07).

In the meantime, the IPC has received staff information from the academic department heads and space information from the building manager (2A08) and (2A09). It has evaluated and integrated this information (2A10) and now reports available staff and space to the counselor (2A11).

When the counselor has available to him student, staff, and space information (2A12), he asks the student to report for registration (2A13). When the student receives this request (1A07), both student and school are ready to register (1A08) and (2A14).

Development of Derived Scores

In order for the test scores to be reviewed intelligibly by either the IPC or the counselor, they should first be transformed into scores having a common base. We have elected to convert raw scores to T-scores, the distribution of which has a mean of 50 and a standard deviation of 10. Figure 6 illustrates a routine for constructing a table of T-scores.

In transforming raw scores to T-scores, the first step is to divide 10 by the publisher's reported standard deviation (2A01); then beginning with the lowest possible raw score (2A02), the publisher's reported mean should be subtracted (2A03) to obtain a deviation from the mean. This obtained deviation is multiplied by the ratio (2A04) obtained in 2A01, and 50 is added to the product (2A05). The value obtained in 2A05 is then recorded (2A06), and a test is made to determine whether the raw score utilized last was the highest possible raw score (2X07). If it was not (2Q08), 1 is added to the raw score counter

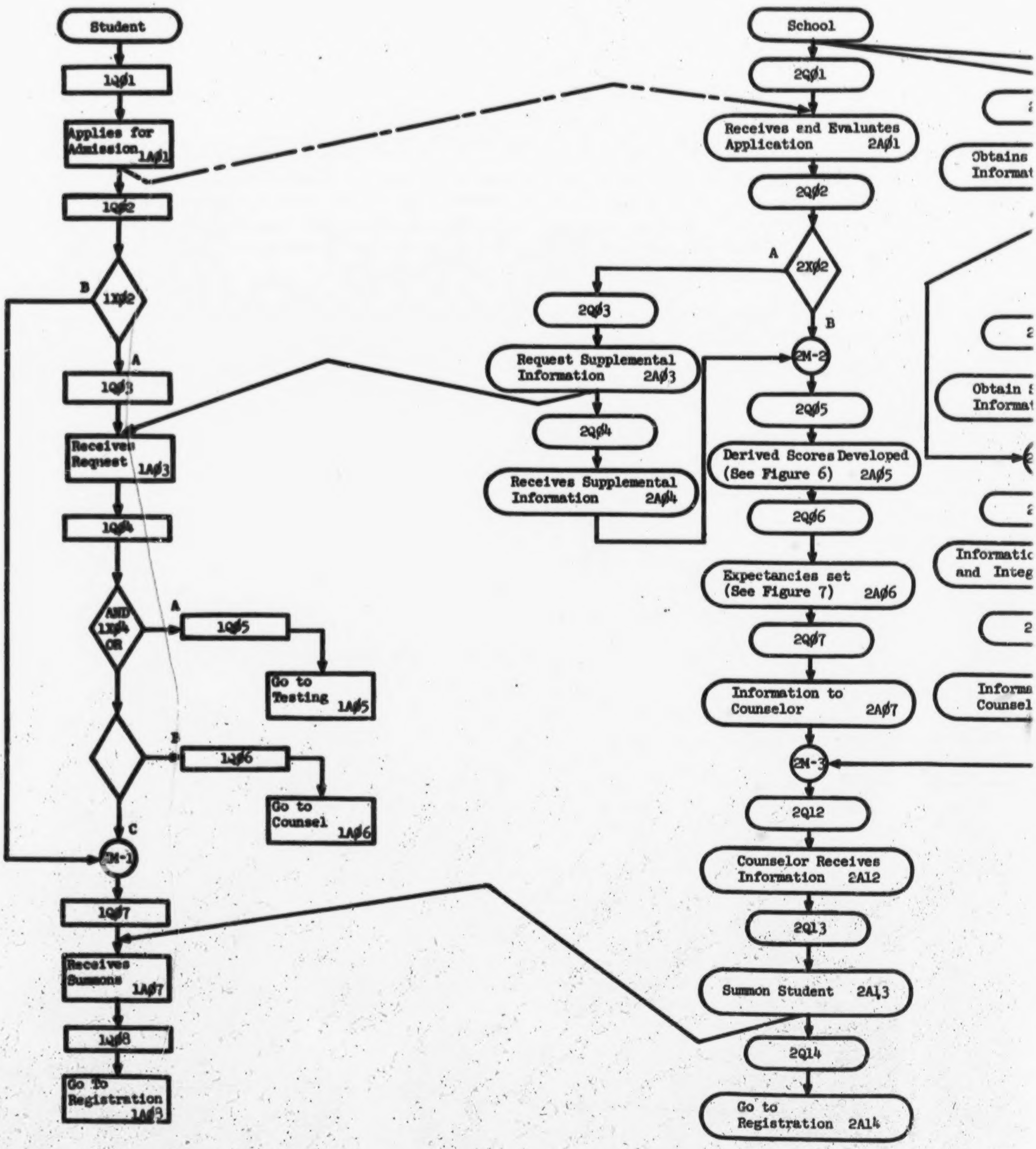

Student
1Q01
Applies for Admission 1A01
1Q02
B
1X02
A
1Q03
Receives Request 1A03
1Q04
AND 1X04 OR
A
1Q05
Go to Testing 1A05
B
1Q06
Go to Counsel 1A06
C
1M-1
1Q07
Receives Summons 1A07
1Q08
Go To Registration 1A08
School
2Q01
Receives and Evaluates Application 2A01
2Q02
A
2X02
B
2Q03
Request Supplemental Information 2A03
2Q04
Receives Supplemental Information 2A04
2M-2
2Q05
Derived Scores Developed (See Figure 6) 2A05
2Q06
Expectancies set (See Figure 7) 2A06
2Q07
Information to Counselor 2A07
2M-3
2Q12
Counselor Receives Information 2A12
2Q13
Summon Student 2A13
2Q14
Go to Registration 2A14
Obtains
Informat
Obtain
Informat
Informatic
and Integ
Informa
Counsel

Figure 5. Pre-Registration

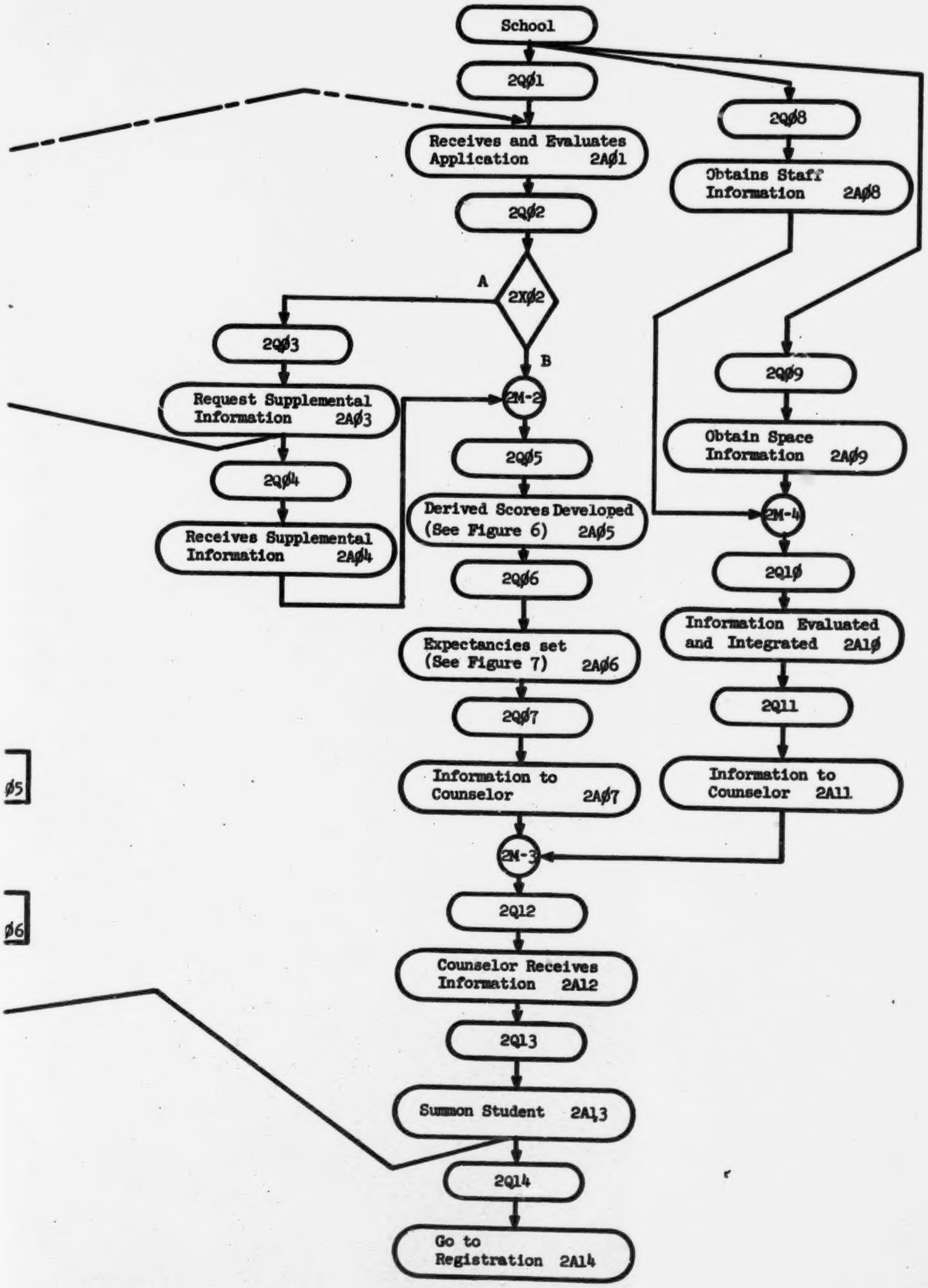

School
2Q01
Receives and Evaluates Application 2A01
2Q02
2X02
A
B
2Q03
Request Supplemental Information 2A03
2Q04
Receives Supplemental Information 2A04
2M-2
2Q05
Derived Scores Developed (See Figure 6) 2A05
2Q06
Expectancies set (See Figure 7) 2A06
2Q07
Information to Counselor 2A07
2Q08
Obtains Staff Information 2A08
2Q09
Obtain Space Information 2A09
2M-4
2Q10
Information Evaluated and Integrated 2A10
2Q11
Information to Counselor 2A11
2M-3
2Q12
Counselor Receives Information 2A12
2Q13
Summon Student 2A13
2Q14
Go to Registration 2A14
05
06

Figure 5. Pre-Registration

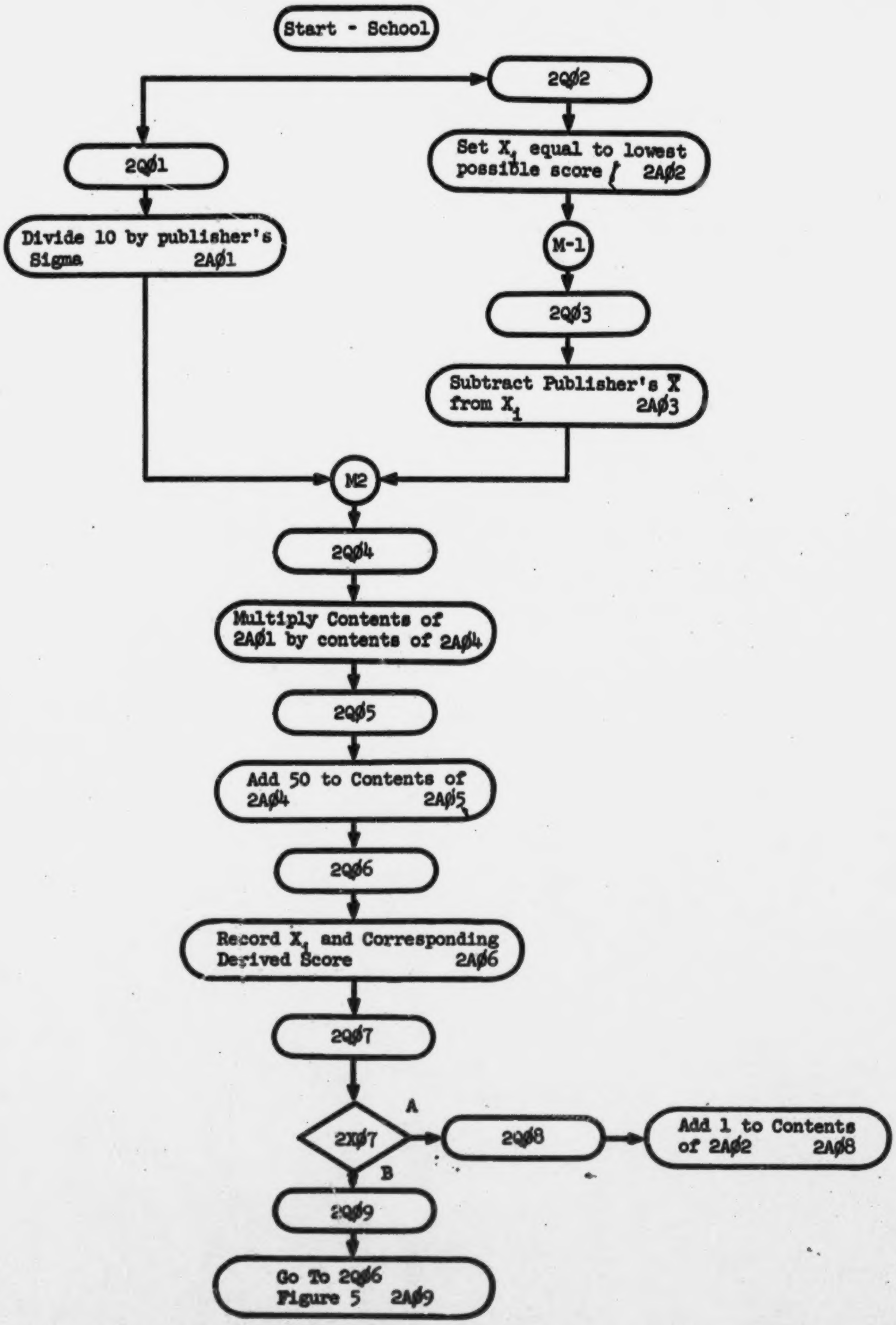

Start - School
2Q02
2Q01
Set X_1 equal to lowest possible score 2A02
Divide 10 by publisher's Sigma 2A01
M-1
2Q03
Subtract Publisher's $\bar{X}$ from X_1 2A03
M2
2Q04
Multiply Contents of 2A01 by contents of 2A04
2Q05
Add 50 to Contents of 2A04 2A05
2Q06
Record X_1 and Corresponding Derived Score 2A06
2Q07
2X07
A
2Q08
Add 1 to Contents of 2A02 2A08
B
2Q09
Go To 2Q06 Figure 5 2A09

Figure 6. Development of Derived Scores

(2A08) and the routine returns to 2Q03. If the latest raw score used was, indeed, the highest possible score (2Q09), the routine is complete and the school returns to preregistration (2A09).

General Procedures for Setting Student Expectancies

The unique feature of the Continuous Progress School is that students progress through the curriculum at their own rates. However, to be able to interpret and evaluate the progress of an individual student, guidelines are necessary which indicate both to the school and the student the progress he should be making and his actual position in relation to this expected progress. For this reason, "expectancies" for each student are established based on the student's own past performance, his abilities and his own desires. The tentative establishment of expectancies can be accomplished by the IPC. Final agreement on expectancy level is made in a student-counselor interview.

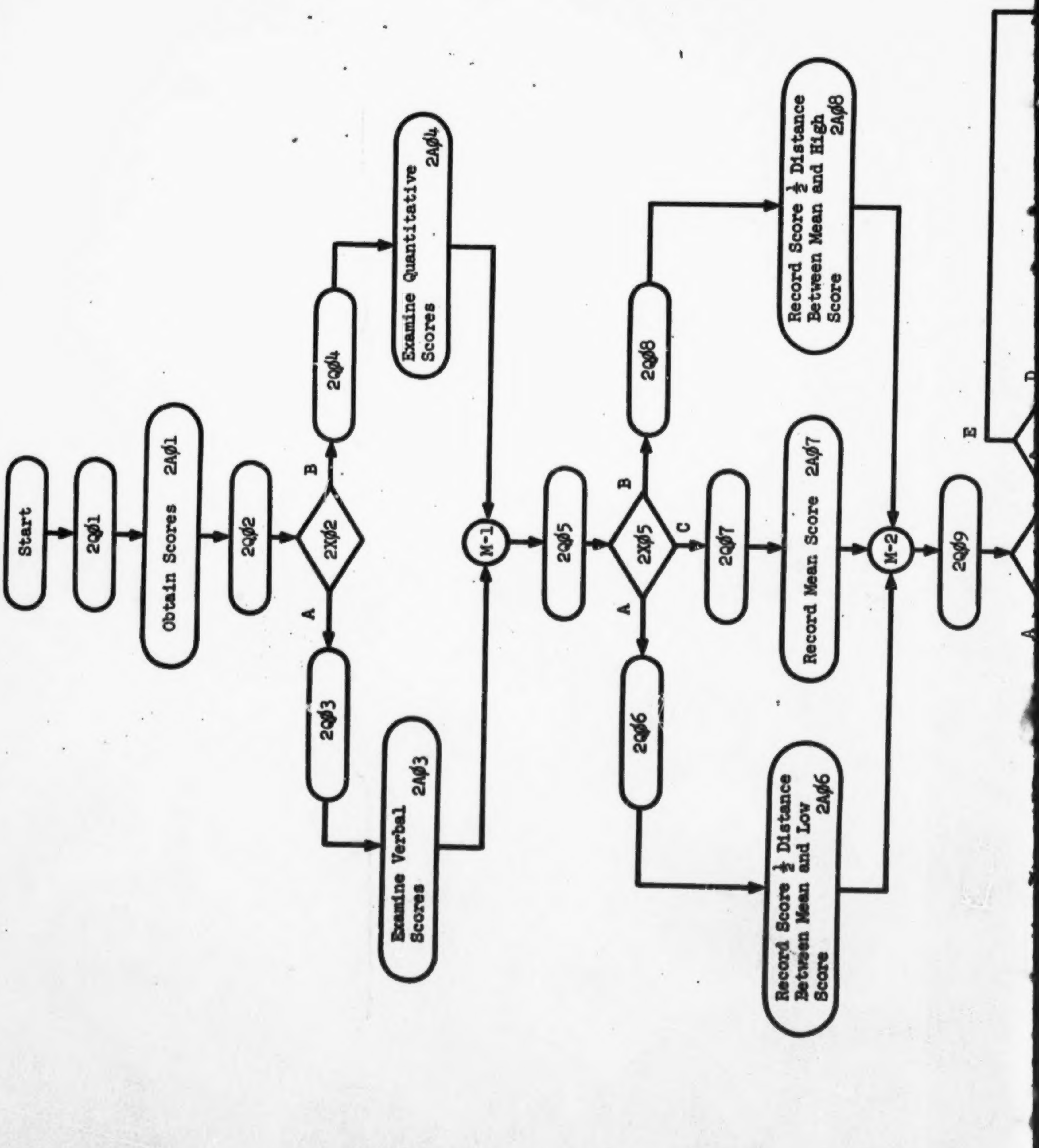
The establishing of expectancy levels for students allows the setting of both quality and quantity goals. The quality goal is the minimum percentage score that the student must obtain on each test. The quantity goal is the rate of the student's progress through the assigned material. Figure 7 shows the steps which must be followed in setting tentative expectancies by the IPC.

After a student's scores have been obtained (2A01), the verbal scores are examined (2A03) if an expectancy level is being established in a verbal area (2Q03), and the quantitative scores are examined (2A04) if an expectancy level is being set for a quantitative course (2Q04).

If the scores are skewed badly toward the positive end of the distribution (2Q06), a score half-way between the mean and the lowest score is recorded (2A06). If the scores are distributed approximately normally (2Q07), the mean score is recorded (2A07). If the scores are skewed badly toward the negative end of the distribution (2Q08), a score half-way between the mean and the highest score is recorded (2A08).

The next step is to assign students to groups. This assignment, which takes place via 2X09, has both quality and quantity implications which become apparent in Figure 8.

If the recorded score is 36.2 or below (2Q10), the student is assigned to Π group (2A10). If the recorded score is from 36.3 to 44.7 inclusive (2Q11), the student is assigned to K group (2A11). If the recorded score is from 44.8 to 55.2 inclusive (2Q12), the student is assigned to Σ group (2A12). If the score is from 55.3 to 64.7 inclusive (2Q13), the student is assigned to T group (2A13). If the score is higher than 64.8 (2Q14), the student is assigned to O group (2A14).


Start
2Q01
Obtain Scores 2A01
2Q02
2X02
A
B
2Q03
Examine Verbal Scores 2A03
2Q04
Examine Quantitative Scores 2A04
M-1
2Q05
2X05
A
B
C
2Q06
Record Score ½ Distance Between Mean and Low Score 2A06
2Q07
Record Mean Score 2A07
2Q08
Record Score ½ Distance Between Mean and High Score 2A08
M-2
2Q09
A
E
D

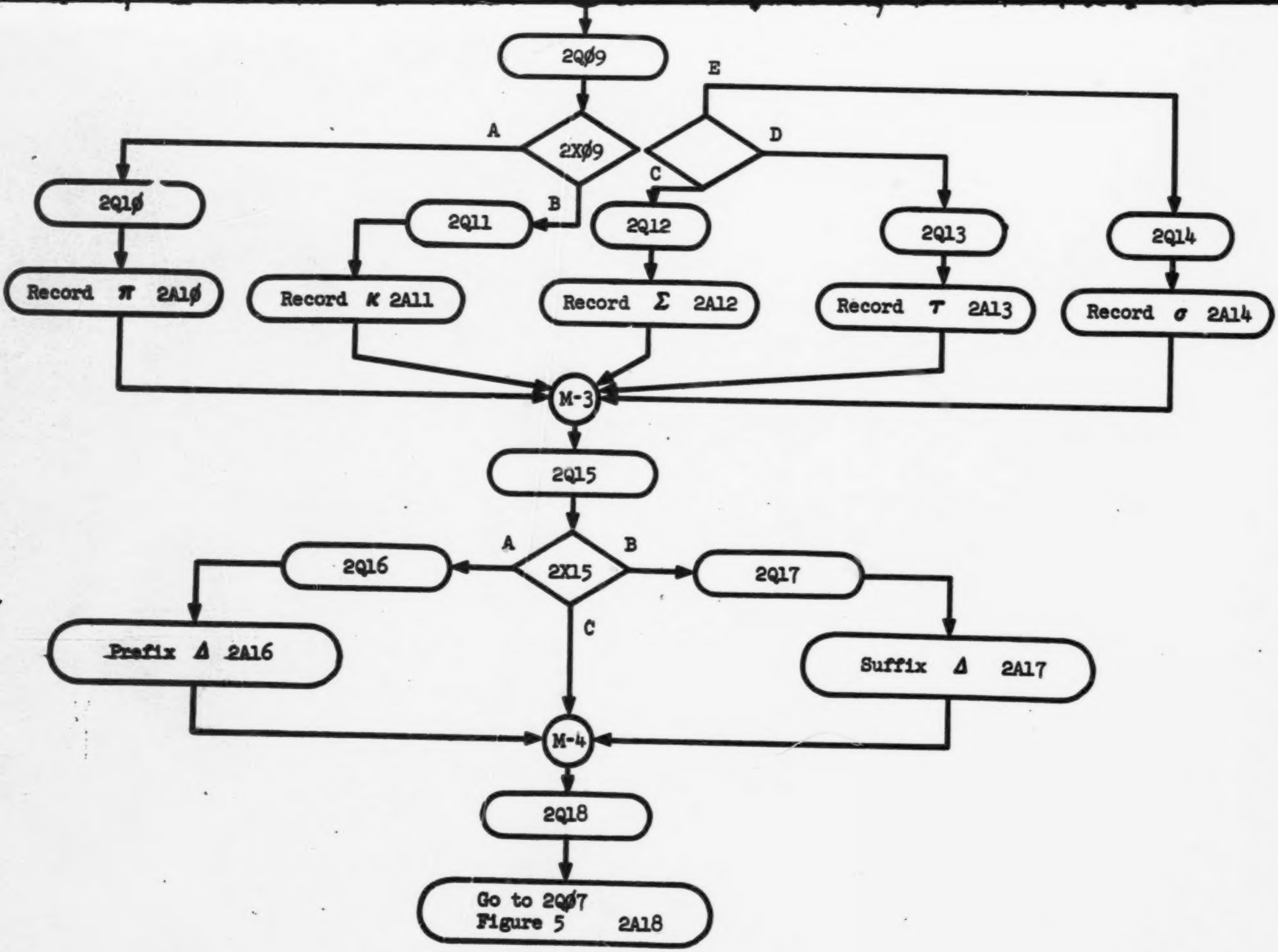

2Q09
E
A
2X09
D
C
B
2Q10
2Q11
2Q12
2Q13
2Q14
Record π 2A10
Record κ 2A11
Record Σ 2A12
Record τ 2A13
Record σ 2A14
M-3
2Q15
A
2X15
B
2Q16
2Q17
C
Prefix Δ 2A16
Suffix Δ 2A17
M-4
2Q18
Go to 2Q07
Figure 5 2A18

Figure 7. General Procedures for Setting Student Expectancies

Following the assignment to a group a further refinement is added by use of a delta. While the deltas are not used in setting performance goals, they are of value to the counselors in interviews with the students, for during these interviews the expectancy level may be changed because of the student's desires. The deltas are prefixed, suffixed, or left off according to the schedule shown in Table 2.

Table 2

Scores Required for Use of Delta as Prefix or Suffix

Major Category	Delta Prefixed	No Delta	Delta Suffixed
Pi (Π)	0 - 30.5	30.6 - 33.5	33.6 - 36.2
Kappa K	36.3 - 39.6	39.7 - 42.6	42.7 - 44.7
Sigma Σ	44.8 - 48.4	48.5 - 51.7	51.8 - 55.2
Tau T	55.3 - 57.3	57.4 - 61.3	61.4 - 64.7
Omicron O	64.8 - 66.4	66.5 - 68.8	68.9 -

The examination and decision on use of deltas takes place at 2X15 in Figure 7; the actual assignment occurs at 2A16 and 2A17.

At the conclusion of this routine, the school returns to 2Q07-Figure 5. (2A18).

REGISTRATION

Overview of Registration

With the completion of the preregistration process, the student is ready to register and begin his classes. An overview of registration is given in Figure 8. The student is shown as reporting to his counselor (1A01) with an interactive process resulting. This interactive process begins when the counselor interprets the student's tests to him (2A01); the student than accepts the interpretation (1A02); together, the student and counselor choose the student's major subject (1A03 and 2A02); and select the student's classes (1A04 and 2A03). The counselor then reports to the student the course

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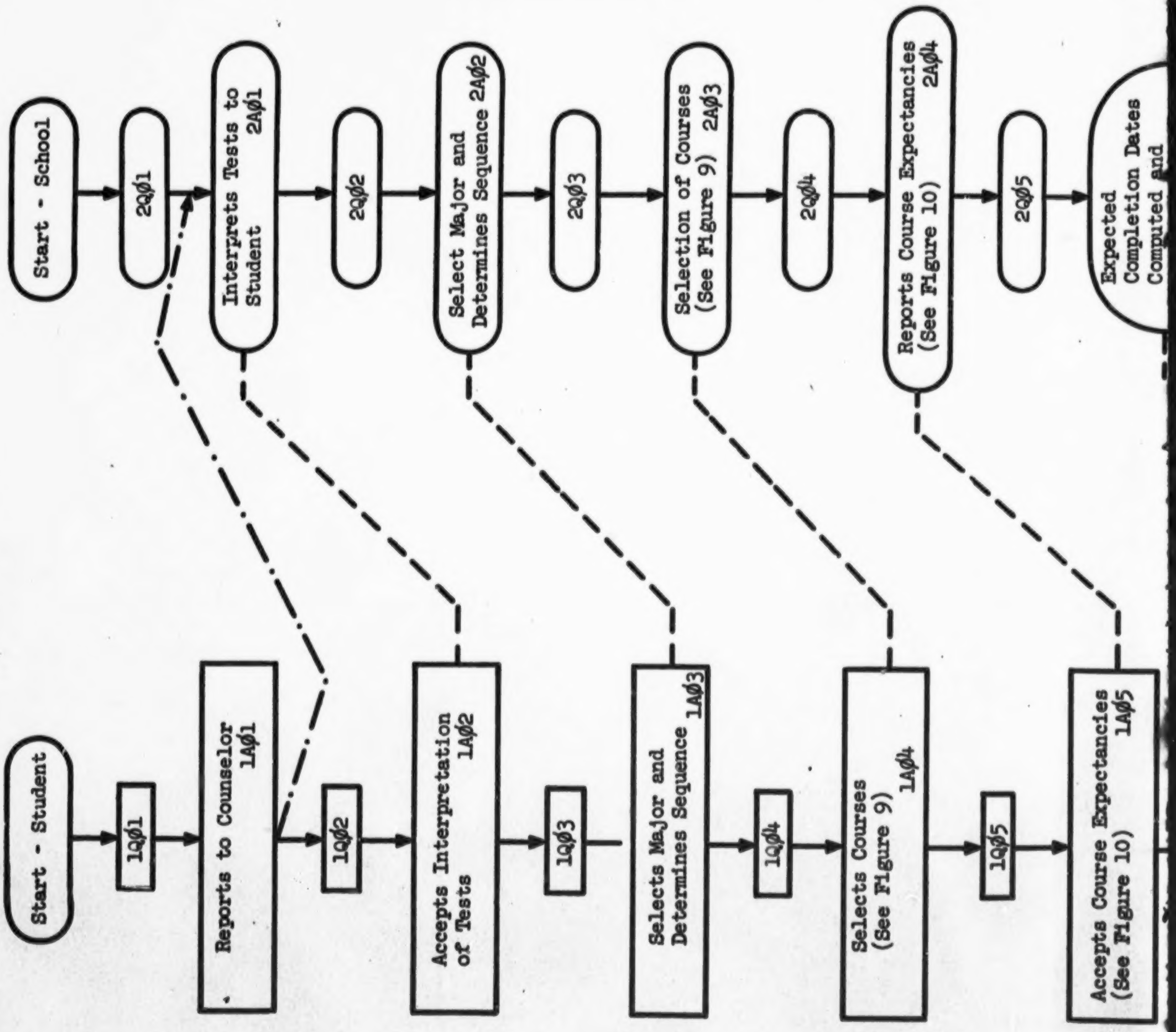
Start - School
2Q01
Interprets Tests to Student 2A01
2Q02
Select Major and Determines Sequence 2A02
2Q03
Selection of Courses (See Figure 9) 2A03
2Q04
Reports Course Expectancies (See Figure 10) 2A04
2Q05
Expected Completion Dates Computed and
Start - Student
1Q01
Reports to Counselor 1A01
1Q02
Accepts Interpretation of Tests 1A02
1Q03
Selects Major and Determines Sequence 1A03
1Q04
Selects Courses (See Figure 9) 1A04
1Q05
Accepts Course Expectancies (See Figure 10) 1A05

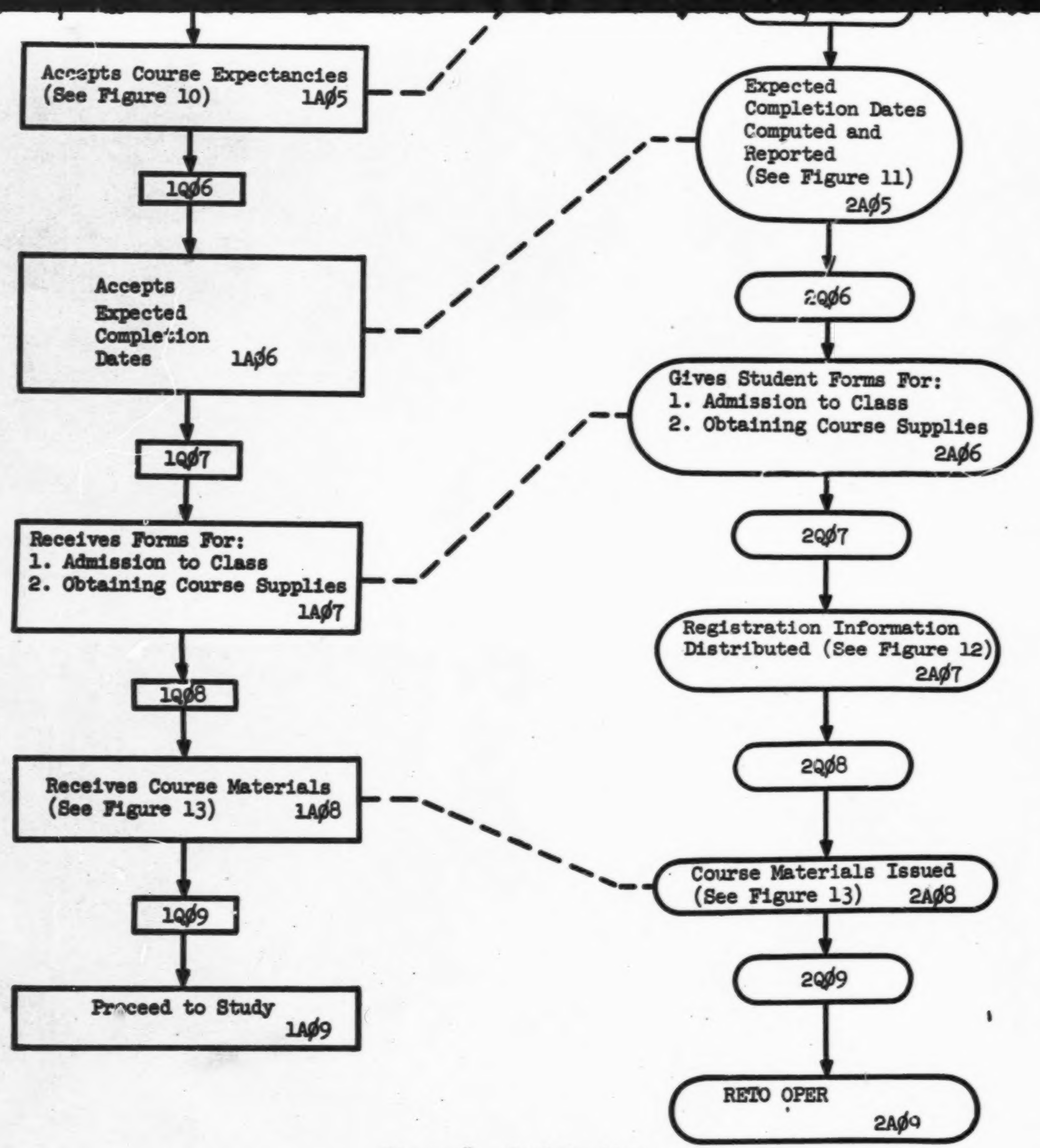
Accepts Course Expectancies
(See Figure 10) 1A05
1Q06
Accepts
Expected
Completion
Dates 1A06
1Q07
Receives Forms For:
1. Admission to Class
2. Obtaining Course Supplies
1A07
1Q08
Receives Course Materials
(See Figure 13) 1A08
1Q09
Proceed to Study
1A09
Expected
Completion Dates
Computed and
Reported
(See Figure 11)
2A05
2Q06
Gives Student Forms For:
1. Admission to Class
2. Obtaining Course Supplies
2A06
2Q07
Registration Information
Distributed (See Figure 12)
2A07
2Q08
Course Materials Issued
(See Figure 13) 2A08
2Q09
RETO OPER
2A09

Figure 8. Registration

expectancies developed in the IPC (2A04). These expectancies are discussed and either the student accepts the proffered expectancies or new ones are worked out in consultation with the counselor (1A05).

Following acceptance of the expectancies, the student is given forms for admission to class and for obtaining course supplies (1A06 and 2A05). Registration information is then forwarded to the IPC (2A06) and the student reports to the Materials Center for his course supplies (1A06 and 2A07). The student is now ready to proceed to his studies (1A08) and the school returns to normal operations (2A08).

Assignment to Classes

An integral part of the registration procedure is the selection of classes. This is shown in Figure 9 where the counselor first assigns the student a required course (2A01) which the student accepts (1A01). Since registration or reregistration can occur at any time in the Continuous Progress School, this one course may fill the student's schedule. In this event, he proceeds immediately to 1Q05, and the school goes to 2Q05. In the event that the student's schedule is not full and he should have another required course, he moves back to 1Q01 (2Q01).

When a student has been assigned a required course, a third alternative is open to him: his schedule is not full so he should choose an elective course. This procedure is shown as 1A03 (2A03). After the selection of one elective course, the student's schedule may be full (1Q05 and 2Q05) or he may select another elective course (1Q03 and 2Q03).

When the student's schedule is full (1Q05 and 2Q05) the procedure returns to Registration, Figure 8 (1A05 and 2A05).

Student Acceptance of Expectancies

Although the IPC can compute expectancies that are reasonable in terms of the student's measured abilities and past performance, these computed expectancies do not always conform to his current expectations. For this reason, each time the student registers for a new class his expectancies, both quality and quantity, are reviewed with him. This review is illustrated graphically in Figure 10.

Here, the counselor begins by showing and explaining the computed expectancies to the student (2A01) who examines the expectancies and reacts to them (1A01). In some instances the student will feel modifications are appropriate (1Q03). If he suggests modifications (1A03), the counselor will judge them (2X02) and agree with them or with some compromise (2Q03), in which event he will record the modifications agreed upon (2A03) or he will reject the modifications, leaving the expectancies as they were computed (2Q04).

In most instances the student's expectations coincide with the computed expectancies (1Q04). In this event, the counselor gives the student an expectancy progress chart, informing him that this can be modified (2A04). The student accepts this chart (1A04), and the system is ready to return to the registration process (1A05 and 2A05).

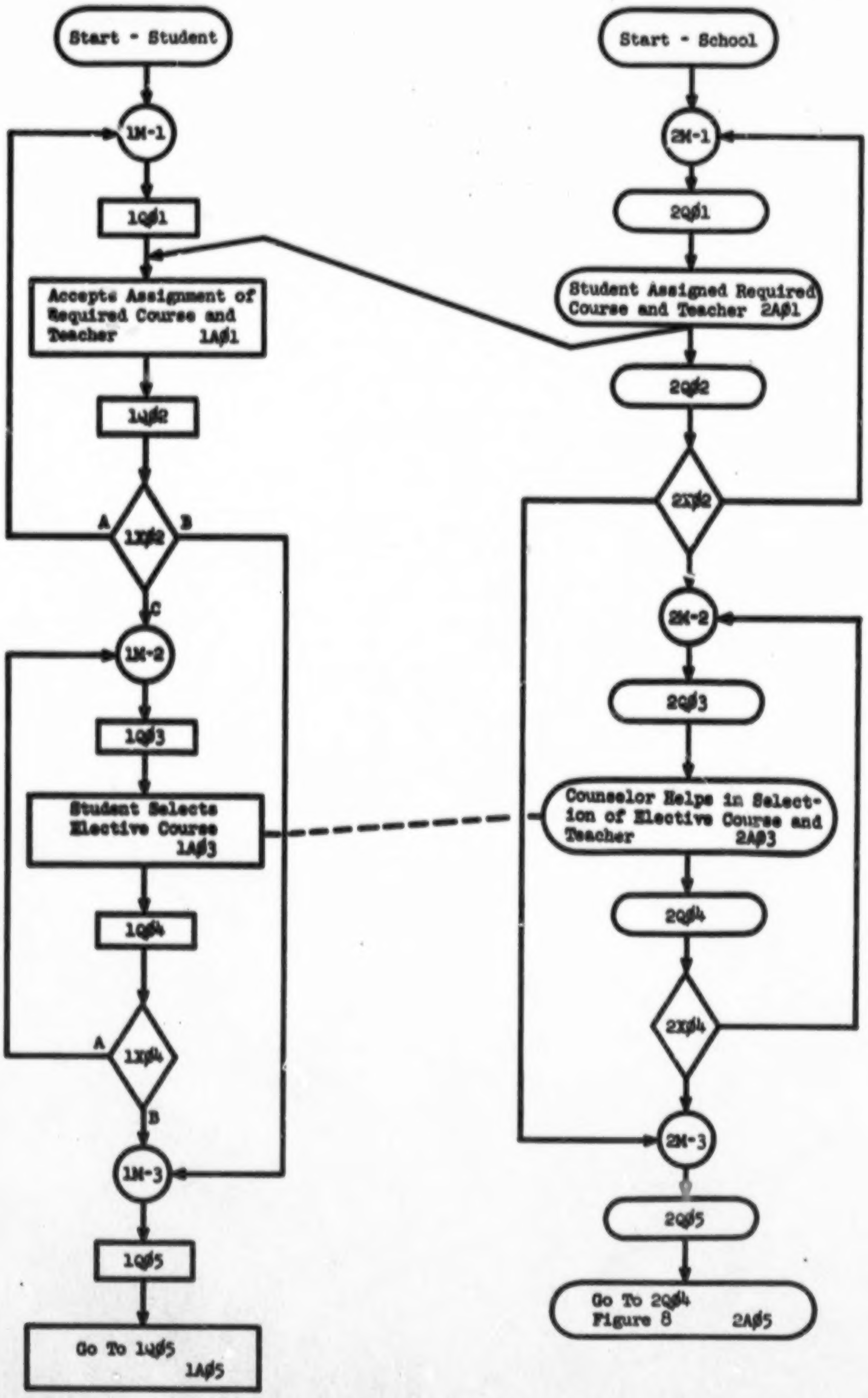
Start - Student
1M-1
1Q01
Accepts Assignment of Required Course and Teacher 1A01
1Q02
A
1X02
B
C
1M-2
1Q03
Student Selects Elective Course 1A03
1Q04
A
1X04
B
1M-3
1Q05
Go To 1Q05 1A05
Start - School
2M-1
2Q01
Student Assigned Required Course and Teacher 2A01
2Q02
2X02
2M-2
2Q03
Counselor Helps in Selection of Elective Course and Teacher 2A03
2Q04
2X04
2M-3
2Q05
Go To 2Q04 Figure 8 2A05

Figure 9. Assignment to Courses and Teachers

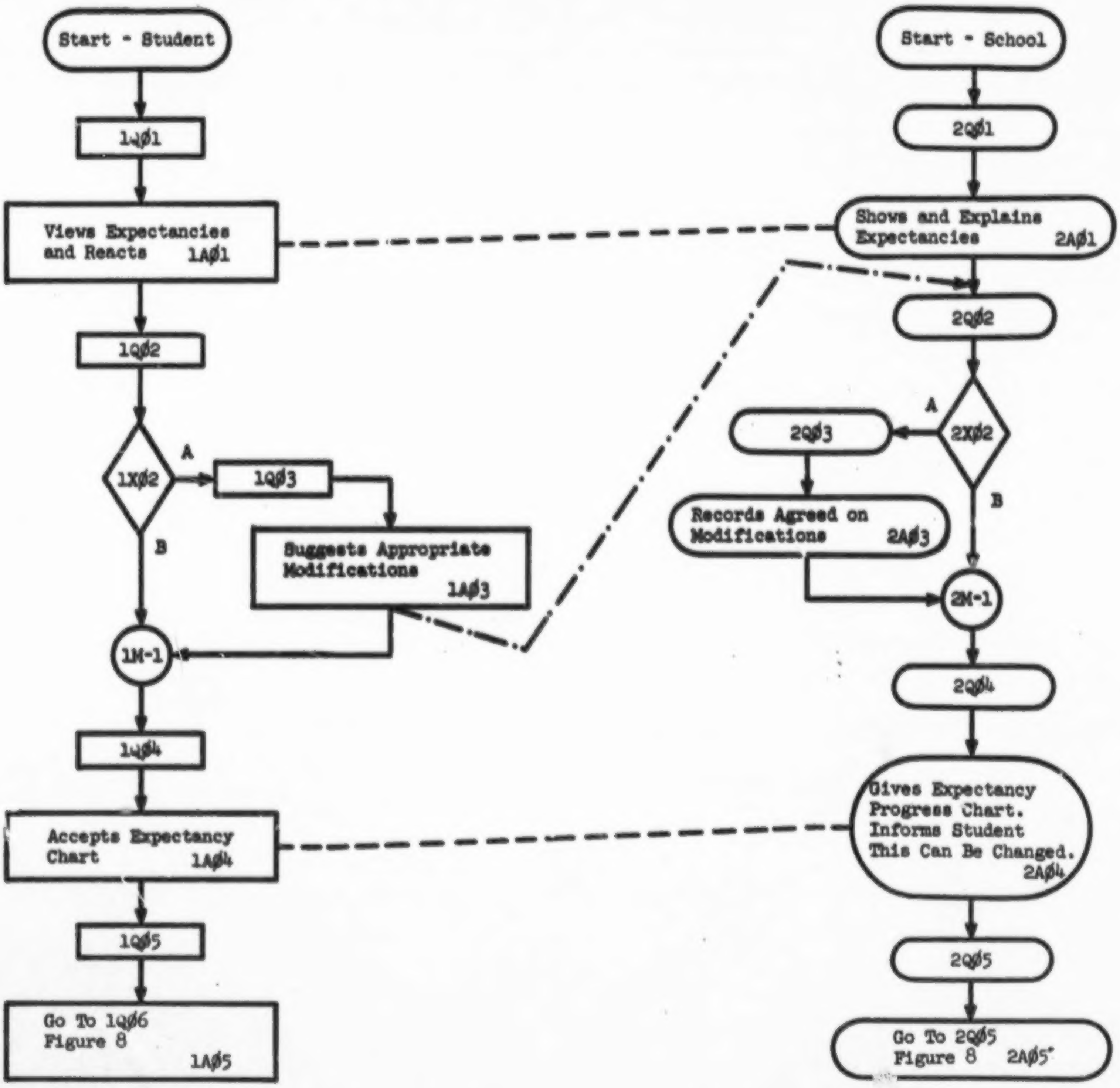
Start - Student
1Q01
Views Expectancies and Reacts 1A01
1Q02
1X02
A
B
1Q03
Suggests Appropriate Modifications 1A03
1M-1
1Q04
Accepts Expectancy Chart 1A04
1Q05
Go To 1Q06 Figure 8 1A05
Start - School
2Q01
Shows and Explains Expectancies 2A01
2Q02
2X02
A
B
2Q03
Records Agreed on Modifications 2A03
2M-1
2Q04
Gives Expectancy Progress Chart. Informs Student This Can Be Changed. 2A04
2Q05
Go To 2Q05 Figure 8 2A05

Figure 10. Student Acceptance of Expectancies

Setting Expected Unit and Course Completion Dates

When the student has been assigned to an expectancy level group for a given course, specific assignments and goals can be established. For any given course three aspects of assignments and goals may be present. Placement of students in these three aspects is shown in Figure 11.

The first implication of assignment to a group, types of materials used within a course, is present in only a limited number of courses such as literature. Thus at 2X01, a given course may proceed directly to M-1, bypassing assignment to course level. Activity blocks 2A02 through 2A06 represent the actual assignment of students to levels within a course.

Following assignment to course level, the students merge to form 2A07. At that point the number of days for each unit in a regular course is recorded.

The second and third aspects of assignments, quality and quantity expectancies, become realities in the activity blocks following split 2X08. Here again, any given course may bypass the setting of quality and quantity expectations, with the routine for that course proceeding directly to M-2. In most academic courses, however, students will be assigned to quality and quantity expectancy levels in activity blocks 2A09 to 2A18. Table 3 shows the actual breakdown of assignments.

The queues formed from 2X08--2Q09, 2Q11, 2Q13, 2Q15, and 2Q17--contain information on students assigned to the respective levels--pi, kappa, sigma, tau, and omicron. From these queues, the IPC proceeds to set quality and quantity expectancies.

Table 3

Quality and Quantity Expectancy Levels for Various Groups

Group	Quality Level	Activity Block of Assignment	Quantity Level	Activity Block of Assignment
Pi	70%	2AP39	Twice as long as normal	2AP30
Kappa	70%	2AP3A	One and one third as long as normal	2AP3B
Sigma	80%	2AP3C	Normal time	2AP3D
Tau	85%	2AP3E	.80 of normal time	2AP3F
Omicron	90%	2AP3G	.67 of normal time	2AP3H

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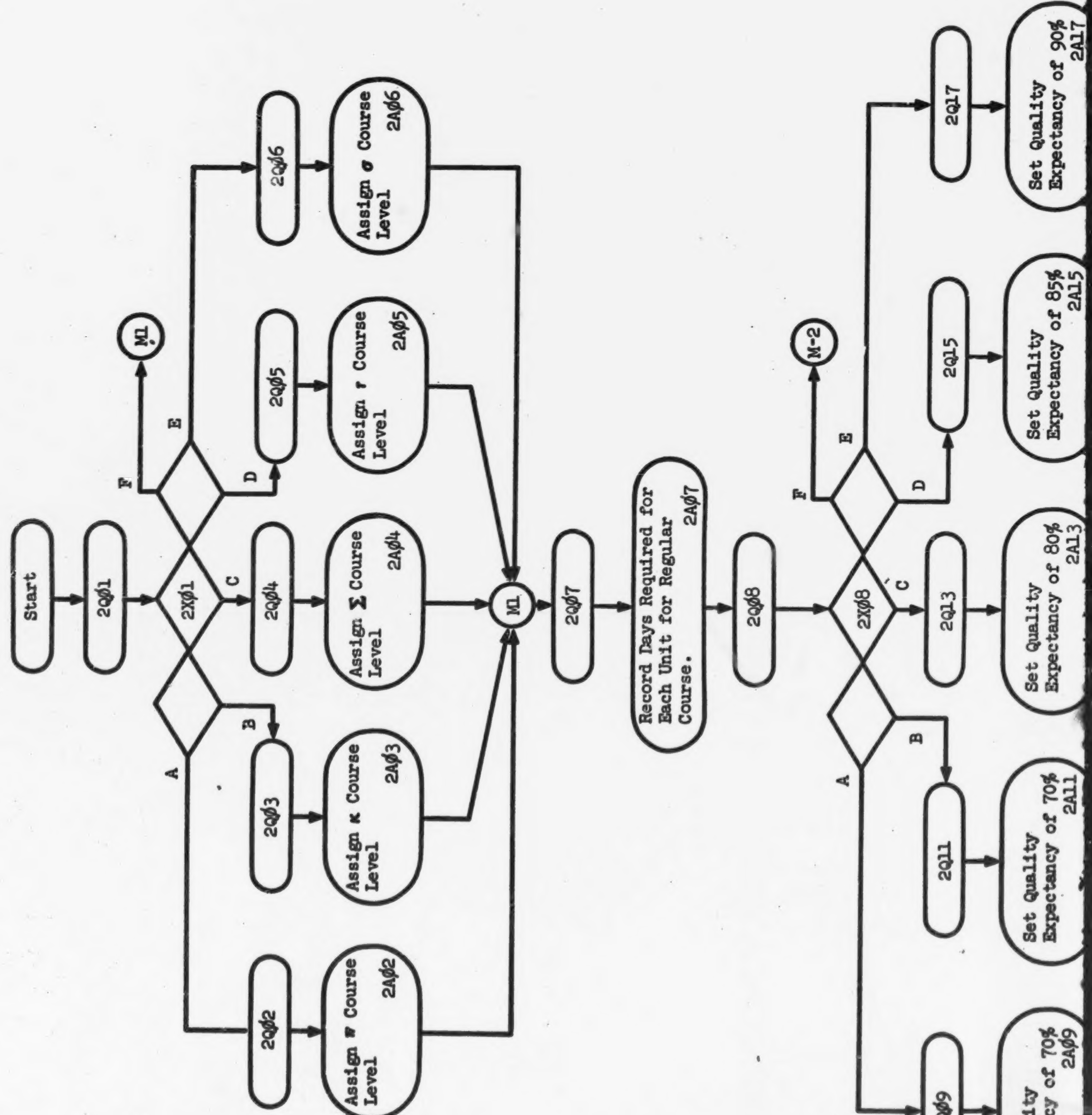
Start
2Q01
2X01
A
B
C
D
E
F
M1
2Q02
Assign π Course Level 2A02
2Q03
Assign κ Course Level 2A03
2Q04
Assign Σ Course Level 2A04
2Q05
Assign τ Course Level 2A05
2Q06
Assign σ Course Level 2A06
M1
2Q07
Record Days Required for Each Unit for Regular Course. 2A07
2Q08
2X08
A
B
C
D
E
F
M-2
2Q09
Set Quality Expectancy of 70% 2A09
2Q11
Set Quality Expectancy of 70% 2A11
2Q13
Set Quality Expectancy of 80% 2A13
2Q15
Set Quality Expectancy of 85% 2A15
2Q17
Set Quality Expectancy of 90% 2A17

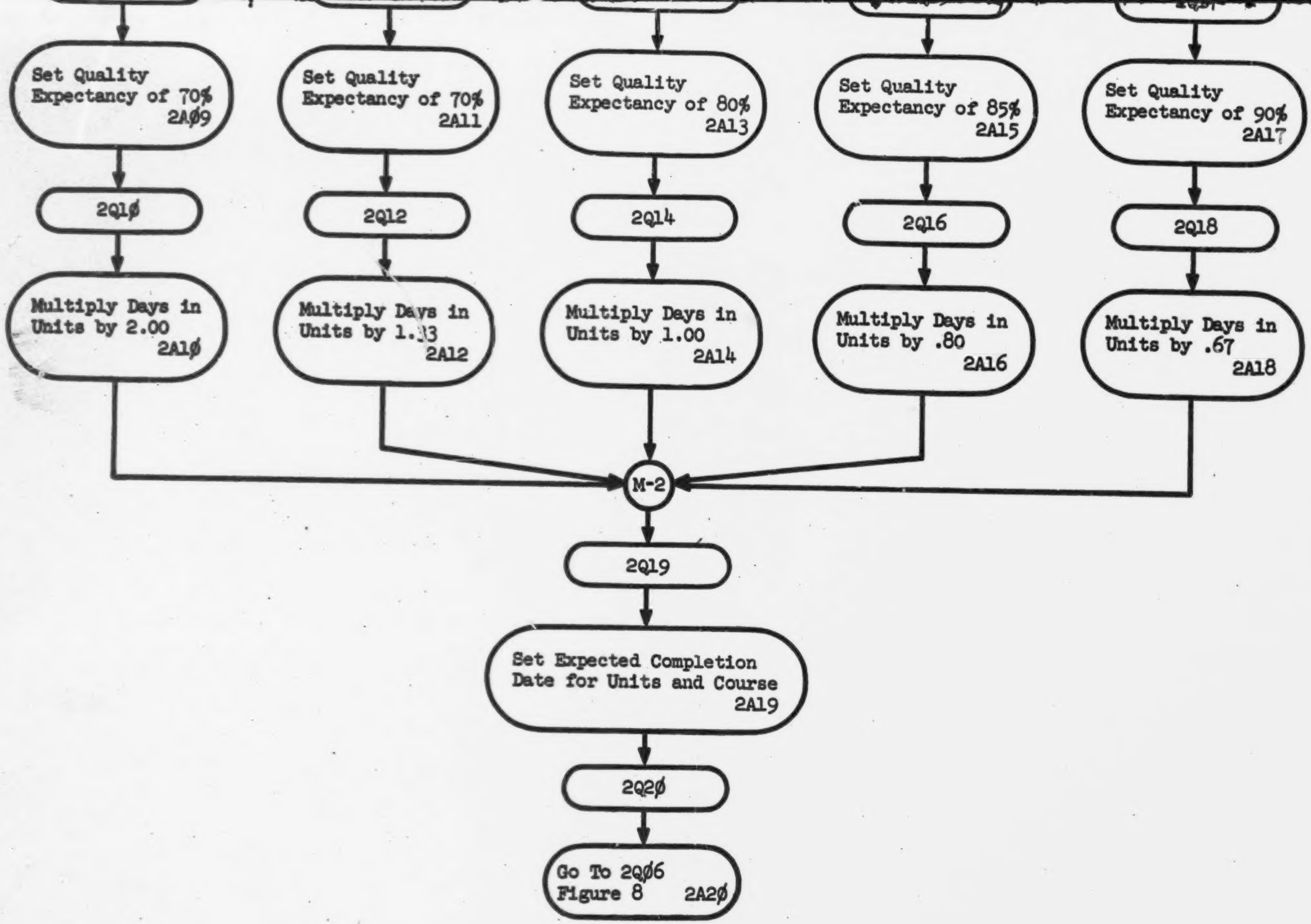
Set Quality Expectancy of 70% 2A09
2Q10
Multiply Days in Units by 2.00 2A10
Set Quality Expectancy of 70% 2A11
2Q12
Multiply Days in Units by 1.33 2A12
Set Quality Expectancy of 80% 2A13
2Q14
Multiply Days in Units by 1.00 2A14
Set Quality Expectancy of 85% 2A15
2Q16
Multiply Days in Units by .80 2A16
Set Quality Expectancy of 90% 2A17
2Q18
Multiply Days in Units by .67 2A18
M-2
2Q19
Set Expected Completion Date for Units and Course 2A19
2Q20
Go To 2Q06 Figure 8 2A20

Figure 11. Setting Expected Unit and Course Completion Dates

After expectancies have been set, the operations merge to form 2Q19; expected completion dates are set for units and course (2A19); and then the school returns to 2Q06-Figure 8 (2A20).

Distribution of Registration Information

When the student has completed his registration including acceptance of his expectancies, appropriate information concerning this registration must be forwarded via the IPC to the respective academic departments and to the materials center. This distribution of information is depicted in Figure 12.

Once the registration is complete, the counselor reports the courses selected and the expectancies agreed on to the IPC (2A01). Here the information is recorded in the student's file and the academic department files, and notation is made in the Materials Center files that purchases and/or withdrawals probably will be made for the courses for which the student is newly registered (2A02). Information is then forwarded by the IPC to the academic departments (2A04) and, via the academic departments, to the teachers (2A05) and the Materials Center (2A06). Action then returns to Registration (2A07).

Issuing of Course Materials

Between the completion of registration and the beginning of course work, the student must obtain the books and supplies required for use in the course. This activity is described graphically in Figure 13. Here the student is shown as presenting his materials form at the Materials Center (1A01). Having already received notification of the student's registration (2A01), the Materials Center accepts the withdrawal form (2A02) and, if all the supplies are available (1QR46 and 2QR46), issues them (1A06 and 2A06). If some of the supplies are unavailable (1Q03 and 2Q04), those available are issued (1A03 and 2A04) and the student is told a time when he may return to receive the remainder of his materials (1A05 and 2A05).

When the student has received his supplies, he is ready to proceed (1A07), but the Materials Center must report supplies issued to the IPC (2A07) where appropriate notations are made (2A09) and pertinent information is forwarded to departments (2A10). The school now also is ready to proceed (2A11).

Discussion

The figures presented in this section, outlining the registration process in the Continuous Progress School, point out three major ways in which this process differs from registration in a traditional school: (a) registration for a given student can occur at any time during the year; (b) in a given registration, a student may register for one or many courses; and (c) students are given expectancy charts which indicate the dates by which they should complete particular units of work.

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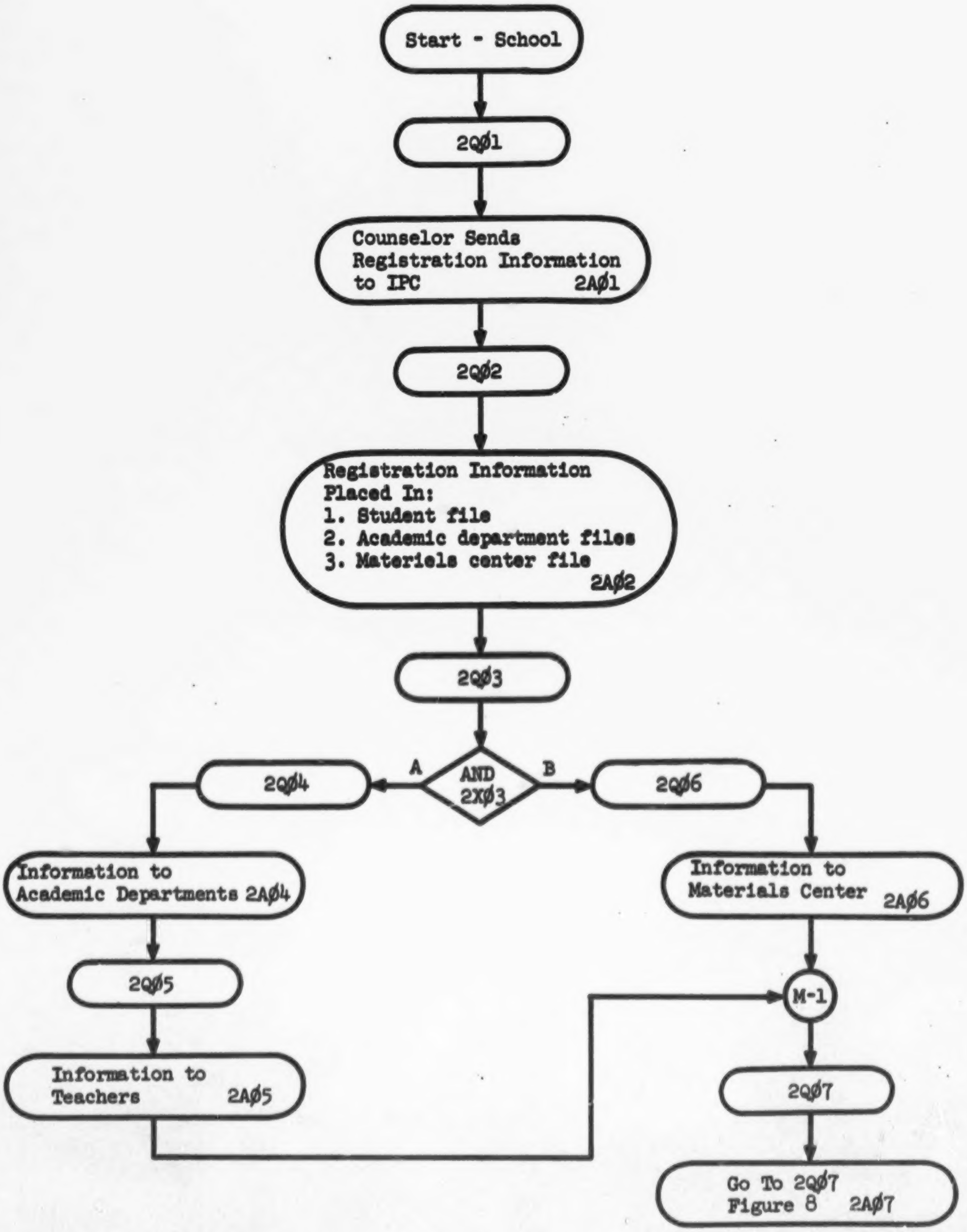
Start - School
2Q01
Counselor Sends Registration Information to IPC 2A01
2Q02
Registration Information Placed In:
1. Student file
2. Academic department files
3. Materiels center file
2A02
2Q03
A
AND 2X03
B
2Q04
2Q06
Information to Academic Departments 2A04
Information to Materials Center 2A06
2Q05
M-1
Information to Teachers 2A05
2Q07
Go To 2Q07 Figure 8 2A07

Figure 12. Distribution of Registration Information

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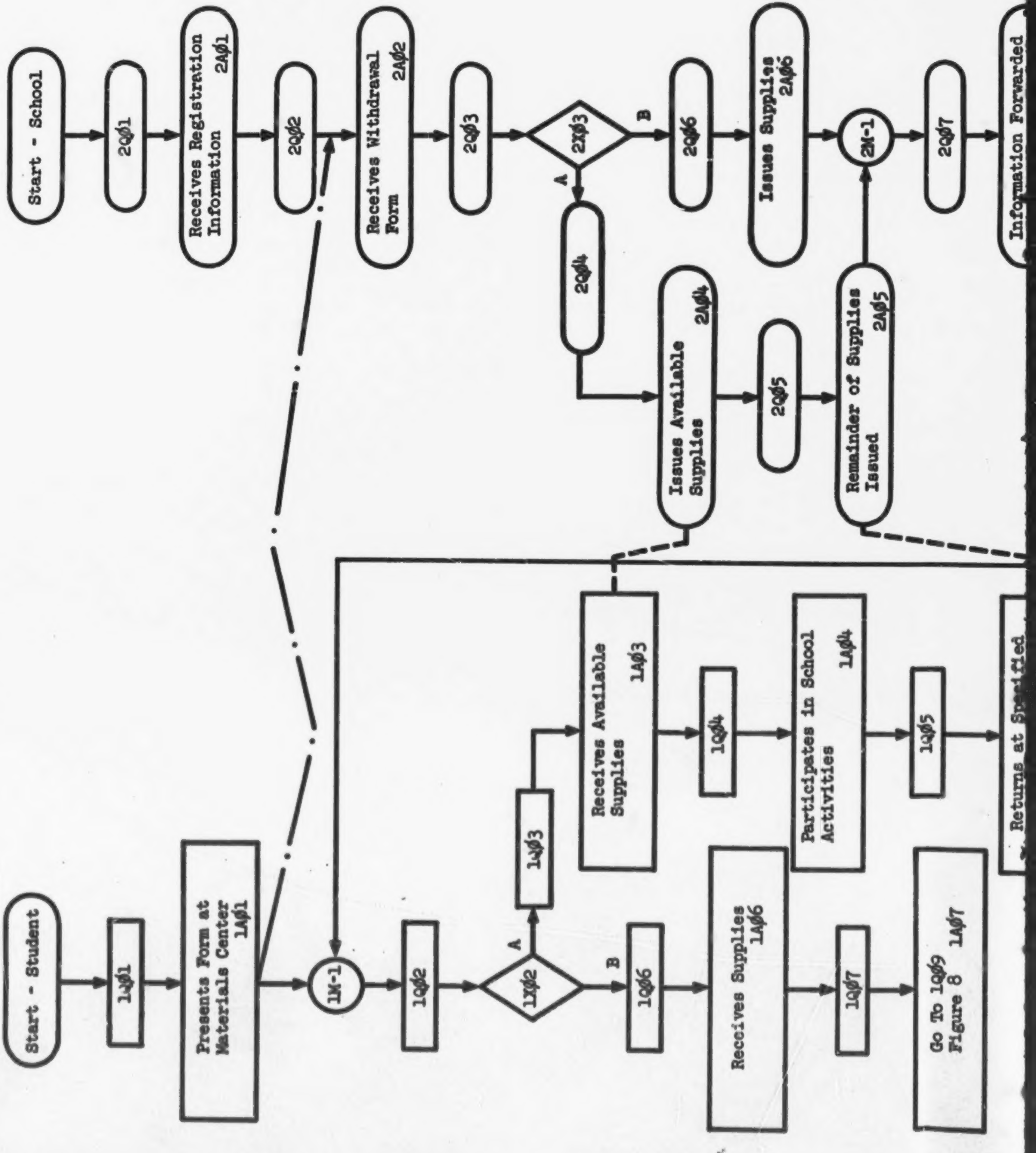

Start - School
2Q01
Receives Registration Information 2A01
2Q02
Receives Withdrawal Form 2A02
2Q03
2X03
A
B
2Q04
Issues Available Supplies 2A04
2Q05
Remainder of Supplies Issued 2A05
2Q06
Issues Supplies 2A06
2M-1
2Q07
Information Forwarded
Start - Student
1Q01
Presents Form at Materials Center 1A01
1M-1
1Q02
1X02
A
B
1Q03
Receives Available Supplies 1A03
1Q04
Participates in School Activities 1A04
1Q05
Returns at Specified
1Q06
Receives Supplies 1A06
1Q07
Go To 1Q09 Figure 8 1A07

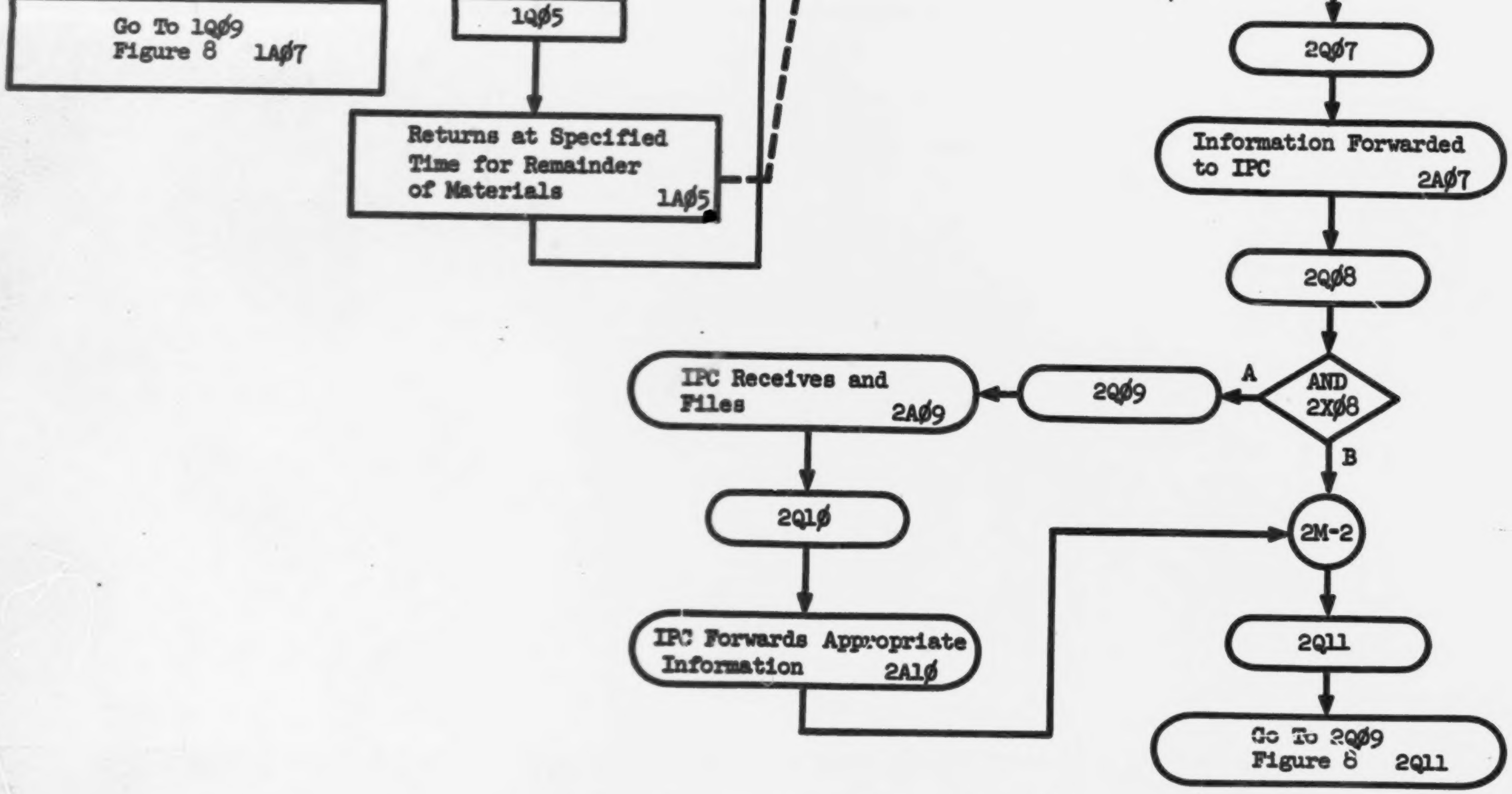

Go To 1Q09
Figure 8 1A07
1Q05
Returns at Specified Time for Remainder of Materials 1A05
2Q07
Information Forwarded to IPC 2A07
2Q08
AND 2X08
A
B
2Q09
IPC Receives and Files 2A09
2Q10
IPC Forwards Appropriate Information 2A10
2M-2
2Q11
Go To 2Q09
Figure 8 2Q11

Figure 13. Issuing of Course Materials

COURSE WORK

Organization of the instructional process differs greatly in the Continuous Progress School from such organization in a traditional school. This difference in organization of instruction is illustrated in Figure 14, a flow chart describing a student's progress through a typical academic course such as history or English (though there are many differences even between courses which seem as similar as these). The precise details of progress through specific courses is shown later in this report.

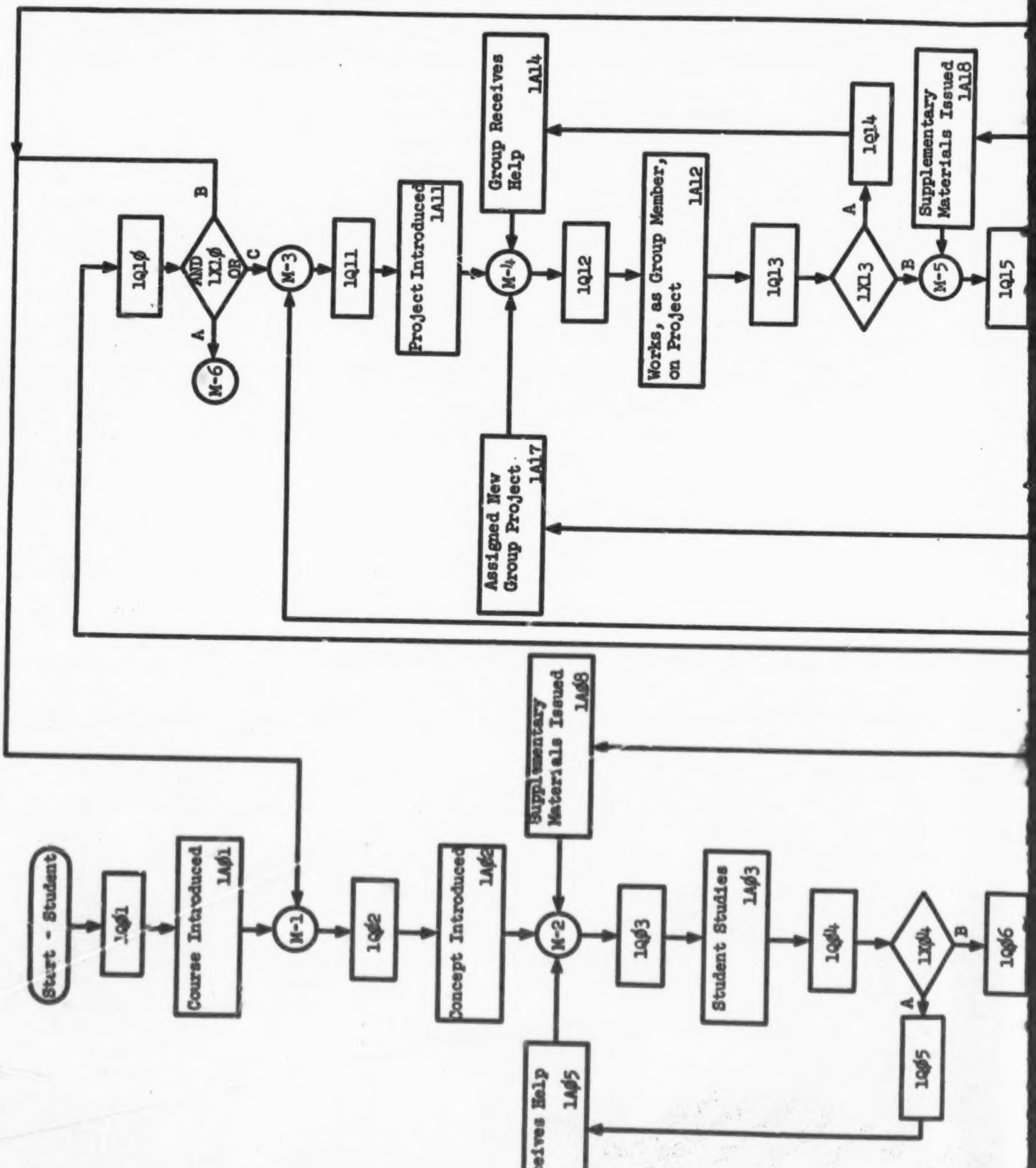
Each new course in the Continuous Progress School is introduced to the students by the teacher in a fairly formal session (1A01). An overview of the course with its purposes and an outline for achieving these purposes is presented. The formal presentation is followed by a less formal discussion period in which students may ask and discuss questions that arise.

The content of each course is broken down into a series of concepts. After the introductory sessions, and later on as each concept is mastered and the student becomes ready to begin work on a new concept, he arranges for a tape or film presentation (1A02) of the concept. Following this presentation the student returns to his carrel to work on the materials provided for that concept (1A03). He also uses the facilities of the library, Materials Center, and the various laboratories.

During the period of individual work on a concept or unit, many students either request help or indicate by their performance that they need help (1Q05). (A student may enter 1Q05 (a) by requesting help, (b) if a teacher or an aide perceives that help is required, or (c) if the Surveillance and Detection System of the IPC recognizes that the student is not performing satisfactorily.)

When the student completes a concept or unit (1Q06), he is evaluated on his performance (1A06). If the student's work is judged unsatisfactory (1Q08), supplementary materials are issued (1A08) and the student returns to study in his carrel (1A03). When the student's work on a concept or unit has been judged satisfactory (1Q09), consideration is given to his next activity (1A09).

While most learning is individual in nature, there is also a great deal that can be learned only in a group, e.g., group interaction techniques, choral activity and certain speech and drama skills. Furthermore, much of the social development that takes place during the secondary school years is probably fostered and facilitated by the kinds of group experiences employed by schools. For such reasons as these, provision is made in the Continuous Progress School for various types of group activity; however, before being assigned to a group, a student must have met the prerequisites for the activity of that group. In addition, he is checked on such characteristics as interests, intelligence quotient, and past achievement before a decision is made on the particular


Start - Student
1Q01
Course Introduced 1A01
M-1
1Q02
Concept Introduced 1A02
M-2
1Q03
Student Studies 1A03
1Q04
1X04
A
B
1Q05
Receives Help 1A05
1Q06
Supplementary Materials Issued 1A08
1Q10
AND 1X10 OR
A
B
C
M-6
M-3
1Q11
Project Introduced 1A11
M-4
Group Receives Help 1A14
Assigned New Group Project 1A17
1Q12
Works, as Group Member, on Project 1A12
1Q13
1X13
A
B
1Q14
Supplementary Materials Issued 1A18
M-5
1Q15

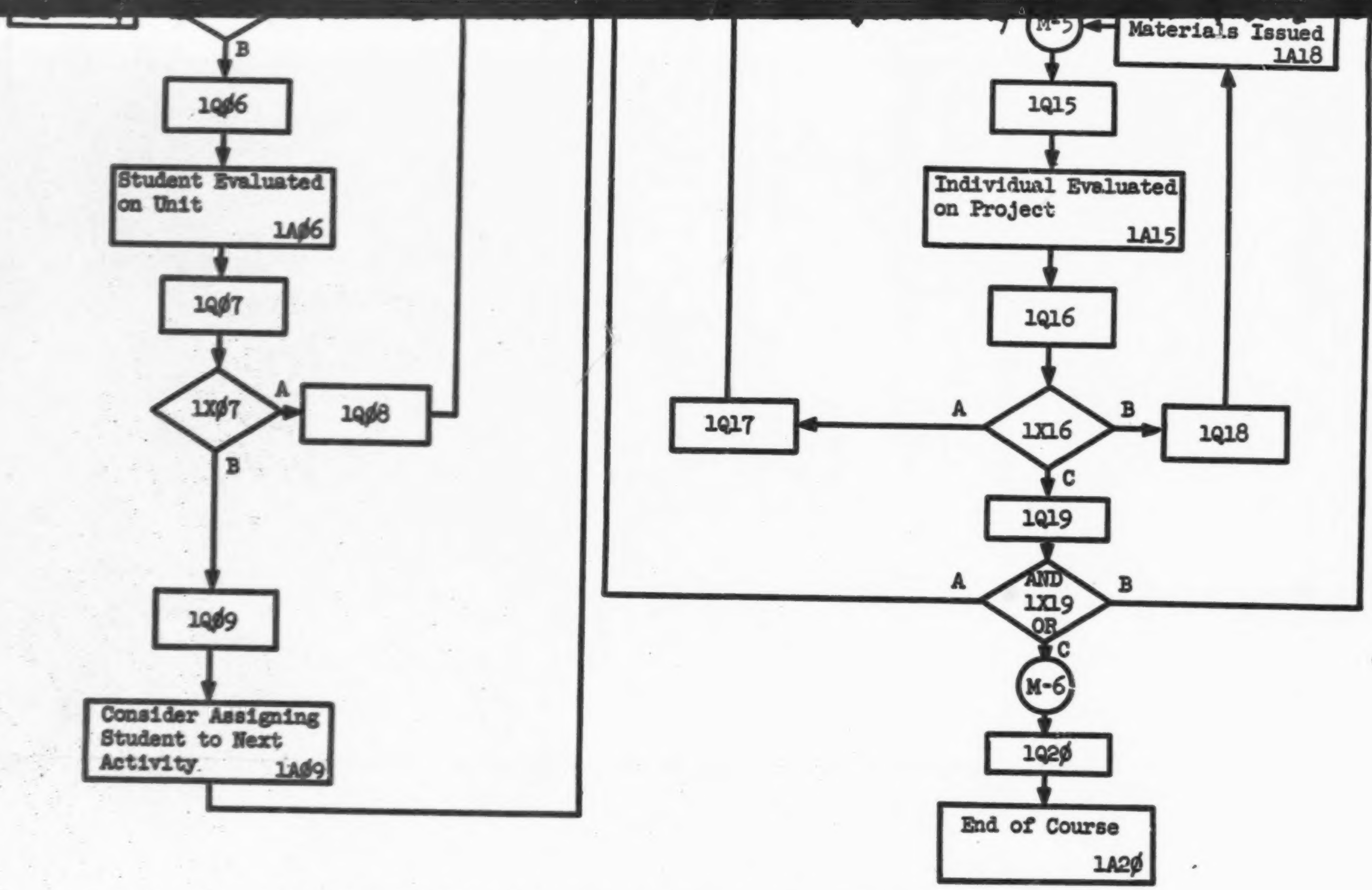

B
1Q06
Student Evaluated on Unit 1A06
1Q07
1X07
A
1Q08
B
1Q09
Consider Assigning Student to Next Activity 1A09
M-5
Materials Issued 1A18
1Q15
Individual Evaluated on Project 1A15
1Q16
1Q17
A
1X16
B
1Q18
C
1Q19
A
AND 1X19 OR
B
C
M-6
1Q20
End of Course 1A20

Figure 14. Progress Through a Typical Continuous Progress School Course

group most appropriate for him. If group work is inappropriate or if for any reason group work is inappropriate at the time, the student is assigned to the next concept (1Q02). If group work is appropriate, the student may be assigned a group (1Q11), he may be assigned both group and individual work, or he may have completed the course (M-6).

After a student has become a member of a group (1Q11), he meets with them and with the teacher who introduces the project (1A11). The group then works on the project until they request help; until the decision is made that help is needed (1Q14), in which event it is given (1A14); or until the project is completed (1Q15). On completion of the project (1Q15) the work of each individual is evaluated (1A15). Based on this evaluation, the student may be (a) assigned supplementary materials to study on his own (Branch B to 1A18), (b) assigned to another group to work on another project (Branch A to 1A17) because of his failure on this project, or (c) judged to have completed the project satisfactorily (1Q19) in which event he goes to 1X19 for reassignment. There the student may be assigned another group project (Branch A to 1Q11) and/or another concept (Branch B to 1Q02), or he may have completed the course (1Q20).

Although the material presented in Figure 14 is general and does not permit detailed analysis of any single course, it does show the complexity of the Continuous Progress School and the differences between this and a traditional school. Detailed analyses of progress through courses are shown later as in the next two sections of this report which deal with a language arts course and a speech course. Other courses will be analyzed in future reports.

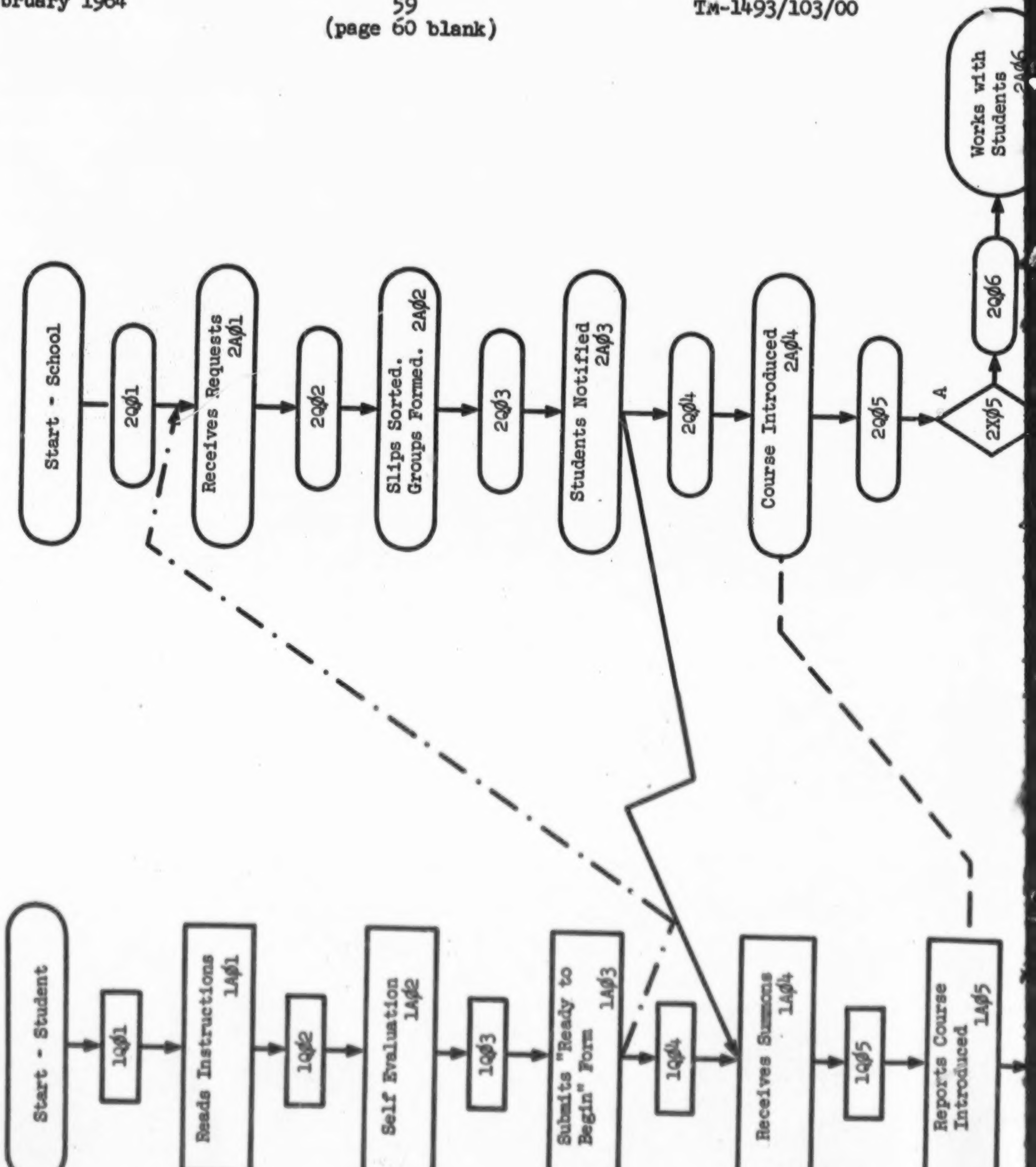
LANGUAGE ARTS COURSE WORK

Most of the work in the development of specific course work for the Continuous Progress School has been completed on mathematics and the basic grammar-literature sequence of the language arts courses. For our purposes, we have chosen to begin course presentation with a language arts course.

Each of the fundamental language art courses has three sections: on grammar, on literature, and on reading and work-study skills for those students who need remedial work of this nature. Unless a student particularly needs remedial work, he may begin a course with the first unit in any one of the sections. He may work on the sections concurrently or individually, but he must make equivalent progress in each.

Introduction to Language Arts Course

Figure 15 shows the student as he is introduced to a language arts course. In his carrel the student reads the instructions for the course (1A01), evaluates his understanding of the instructions (1A02), and then submits a


Start - School
2Q01
Receives Requests 2A01
2Q02
Slips Sorted. Groups Formed. 2A02
2Q03
Students Notified 2A03
2Q04
Course Introduced 2A04
2Q05
A
2X05
2Q06
Works with Students 2A06
Start - Student
1Q01
Reads Instructions 1A01
1Q02
Self Evaluation 1A02
1Q03
Submits "Ready to Begin" Form 1A03
1Q04
Receives Summons 1A04
1Q05
Reports Course Introduced 1A05

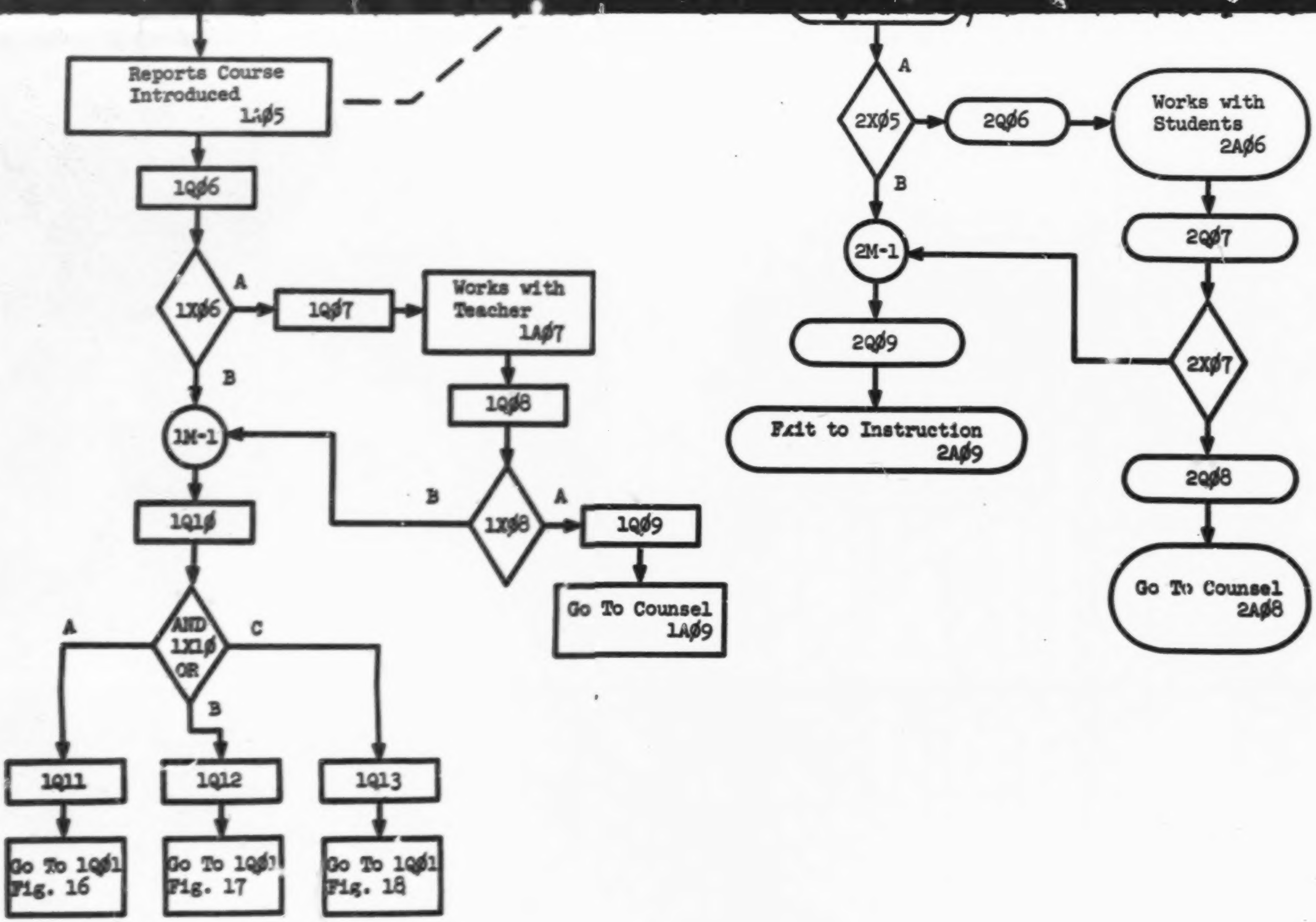

Reports Course Introduced 1A05
1Q06
1X06
A
B
1Q07
Works with Teacher 1A07
1Q08
1X08
A
B
1Q09
Go To Counsel 1A09
1M-1
1Q10
AND 1X10 OR
A
B
C
1Q11
1Q12
1Q13
Go To 1Q01 Fig. 16
Go To 1Q01 Fig. 17
Go To 1Q01 Fig. 18
2X05
A
B
2Q06
Works with Students 2A06
2Q07
2X07
2Q08
Go To Counsel 2A08
2M-1
2Q09
Exit to Instruction 2A09

Figure 15. Introduction to Language Arts Course

a "Ready to Begin" form (1A03). This form may simply indicate that the student is ready for the course introduction or it may contain questions about the course introduction which the student decides (1A02) that he needs to have answered.

Each day the requests which come to the department (2A01) are sorted, groups are formed (2A02), and students are notified that they should report to a teaching studio for the course introduction (2A03). In response to the notification (1A04), the students report and receive an introductory lecture to the course (1A05 and 2A04). (Ideally, highly repetitive lectures of this nature will be taped or filmed so that the teacher's time will be saved for far more specific work with students.)

The split shown next (1X06 and 2X05) permits those students who don't need help (1Q10 and 2Q09) to proceed and those who do need help (1Q07 and 2Q06) to receive it from the teacher (1A07 and 1A08). Some of these students may need counseling (1Q09 and 2Q08), so they are referred to a counselor (1A09 and 2A08). All other students are ready to begin instruction (2A09). The possibility of working on the different sections of the course individually or concurrently is illustrated by split 1X10 and the ensuing queues and activities (1A11, 1A12, and 1A13).

Formation of Groups. One of the most difficult and perplexing problems in the Continuous Progress School is the relationship between the individual and the group. On one hand, students are urged to progress at speeds and in directions commensurate with their own abilities, interests, and desires. On the other hand, students need group experiences and many types of activities can be performed more efficiently for the individual and the school if they are accomplished in groups. Thus, if several students are ready to begin a new course at the same time, the course can be introduced to them and their questions can be answered in a group. However, as students differ in their rate and degree of progress, natural groups may be extremely small. For this reason, artificial methods may be needed to help in the formation of efficient-sized groups. For example, if a weekly review of student progress shows that twelve students are likely to complete a given course during the ensuing week, they might all be encouraged to be prepared for an introduction to the next course or unit. This procedure is not likely to be inconvenient to the students and could permit great savings in school time; however, such a procedure will require fairly sophisticated information-processing equipment in the IPC.

Work-Study Skills

Figure 16 describes the work-study skills section of the language arts courses. From the first queue (1Q01) the student goes to an and/or split which permits him to work on study skills (1Q02), spelling (1Q08), and/or reading (1Q14) according to his needs and desires. When the student elects study skills

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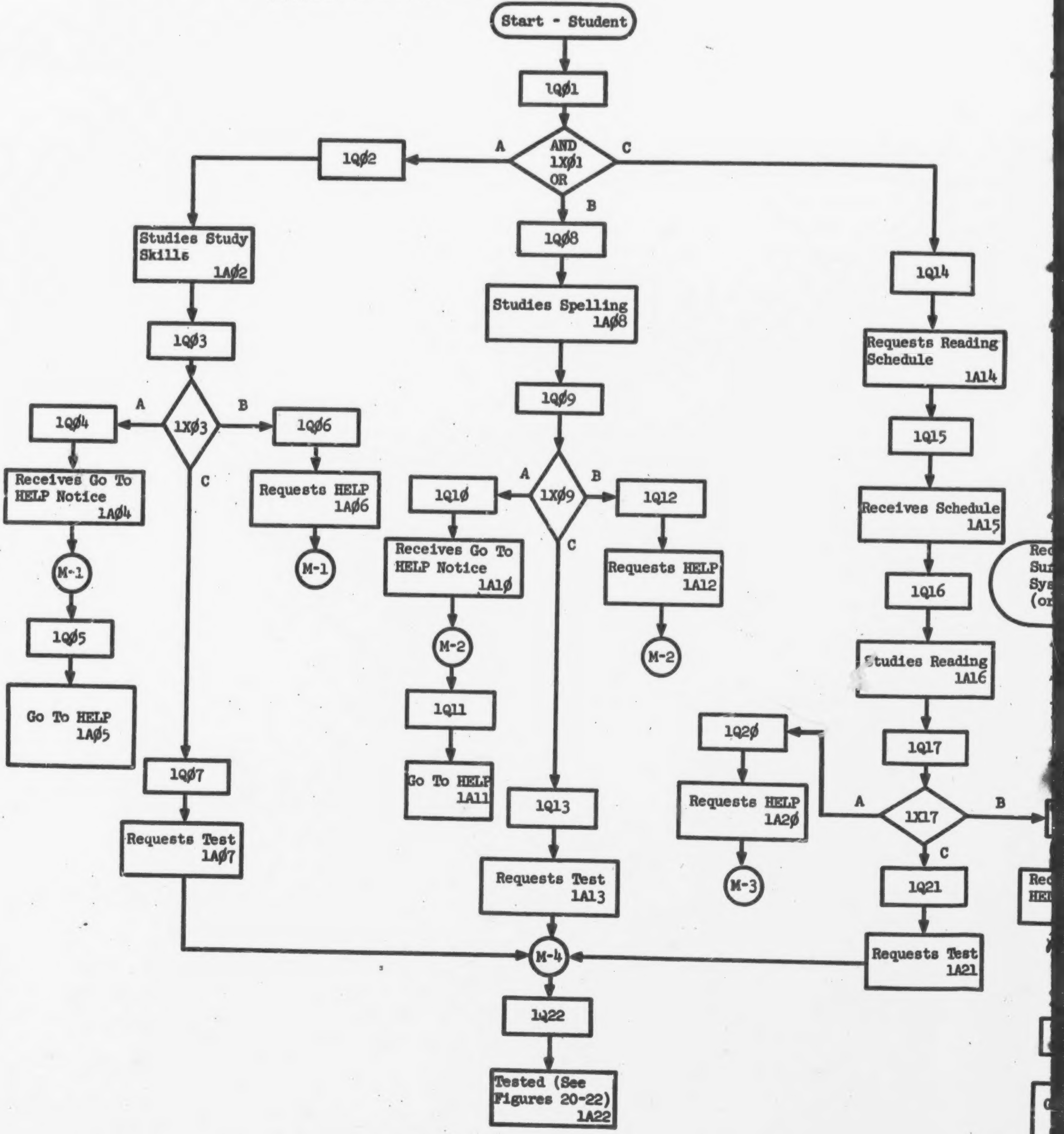
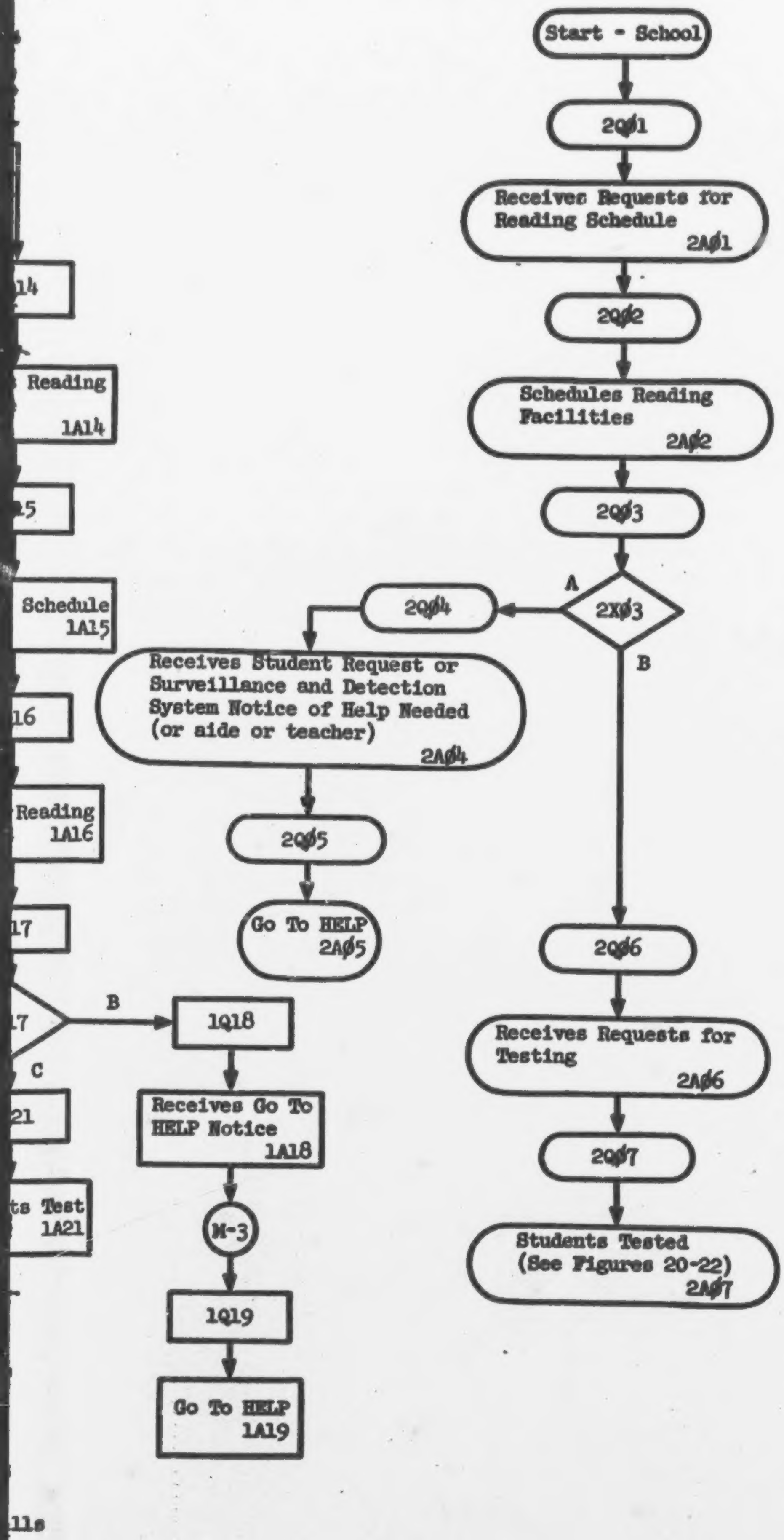

Start - Student
1Q01
AND
1X01
OR
A
B
C
1Q02
Studies Study Skills
1A02
1Q03
1X03
A
B
C
1Q04
Receives Go To HELP Notice
1A04
M-1
1Q05
Go To HELP
1A05
1Q06
Requests HELP
1A06
M-1
1Q07
Requests Test
1A07
1Q08
Studies Spelling
1A08
1Q09
1X09
A
B
C
1Q10
Receives Go To HELP Notice
1A10
M-2
1Q11
Go To HELP
1A11
1Q12
Requests HELP
1A12
M-2
1Q13
Requests Test
1A13
M-4
1Q22
Tested (See Figures 20-22)
1A22
1Q14
Requests Reading Schedule
1A14
1Q15
Receives Schedule
1A15
1Q16
Studies Reading
1A16
1Q17
1X17
A
B
C
1Q20
Requests HELP
1A20
M-3
1Q21
Requests Test
1A21

Figure 16. Work-Study Skills



Start - School
2Q01
Receives Requests for Reading Schedule
2A01
2Q02
Schedules Reading Facilities
2A02
2Q03
2X03
A
B
2Q04
Receives Student Request or Surveillance and Detection System Notice of Help Needed (or aide or teacher)
2A04
2Q05
Go To HELP
2A05
2Q06
Receives Requests for Testing
2A06
2Q07
Students Tested (See Figures 20-22)
2A07
14
Reading
1A14
5
Schedule
1A15
16
Reading
1A16
17
17
B
C
1Q18
Receives Go To HELP Notice
1A18
M-3
1Q19
Go To HELP
1A19
21
ts Test
1A21
lls

(1Q02) or spelling (1Q08), he may do so at his convenience; however, reading instruction requires special equipment such as a tachistoscope or a pacer. When a student wants to study reading, he must, therefore, schedule appropriate equipment and space (1A14, 2A01, 1A15, and 2A02).

As the student progresses in the work-study skills area, he sometimes has difficulty with the assigned materials. This may be recognized by the student himself (1Q06, 1Q12, 1Q20), in which event he requests help (1A06, 1A12, 1A20); or by the school (1Q04, 1Q10, 1Q18 and 2Q04)--by an aide, a teacher, or the S&DS--from which notices are sent to the teacher (2A04) and to the student (1A04, 1A10, 1A18). The student and the school then move into a help routine (1A05, 1A11, 1A19 and 2A05).

At the completion of a unit in any one of the areas in work-study skills (1Q07, 1Q13, 1Q21), the student requests a test (1A07, 1A13, or 1A19). When this request is received (2A06), appropriate arrangements are made for the student to be tested (1A22 and 2A07).

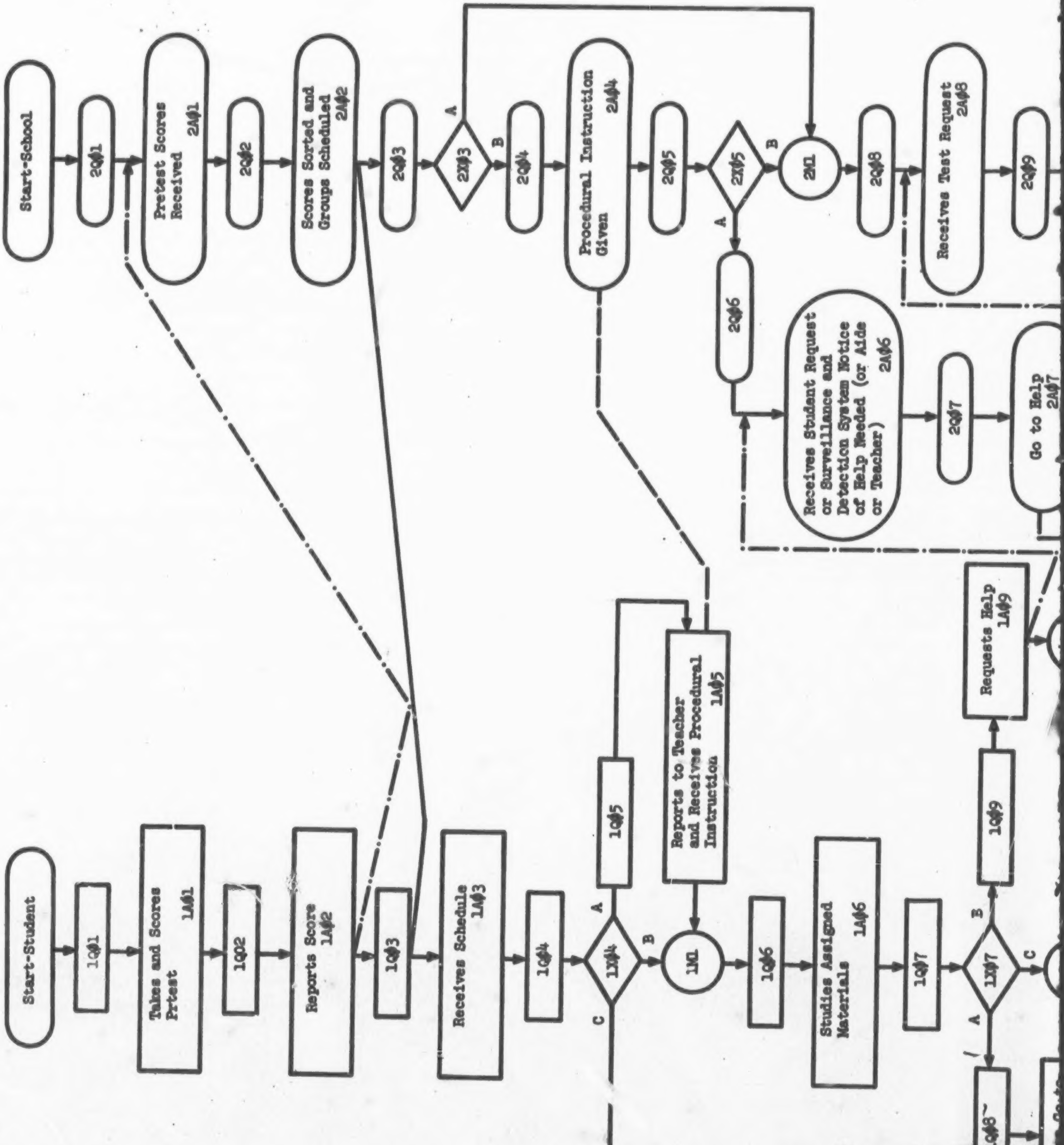
The test indicated is a unit test. The testing, test scoring, and test interpretation processes are represented later in the report. Since a student's next action is dependent on the test outcome and since several alternatives are possible, the process of ending a unit is also represented separately.

Grammar

Progress through the grammar section of language arts courses is shown in Figure 17. To begin a grammar unit, the student first takes a pretest at his carrel (1A01) which he then scores and reports (1A02) to the English Department using a form provided for this purpose. The pretest determines whether the student's knowledge in this area is such that he should not be required to study the materials provided. "Sufficient knowledge" is defined as a score of 95 percent, or higher, on the pretest.

When student pretest scores are received (2A01), they are sorted, and groups are scheduled as needed (2A02). The instructions (schedules) which students receive are of three types (1X04): (a) that he needs training in how to interpret pretest results (Branch A, 1Q05), (b) that he is ready to study the assigned materials (Branch B, 1Q06), or (c) that he is ready to take the "end of unit" test (Branch C, 1Q11). In each instance the student follows through with appropriate action (1A05, 1A06 and 1A11).

In some instances the student has difficulty with the assigned materials. This may be recognized by the student himself (1Q09), so that he requests help (1A09) and moves to a help routine (1A10) or by the school (1Q08 and 2Q06)--by an aide, teacher, or the S&DS--from which notices are sent to the teacher (2A06) and to the student (1A08). The student then moves to a help routine (1A10 and 2A07).


Start-School
201
Pretest Scores Received 2A01
202
Scores Sorted and Groups Scheduled 2A02
203
A
2X03
B
204
Procedural Instruction Given 2A04
205
2X05
B
A
2M1
208
Receives Test Request 2A08
209
206
Receives Student Request or Surveillance and Detection System Notice of Help Needed (or Aide or Teacher) 2A06
207
Go to Help 2A07
Start-Student
101
Takes and Scores Prtest 1A01
102
Reports Score 1A02
103
Receives Schedule 1A03
104
A
1X04
B
C
105
Reports to Teacher and Receives Procedural Instruction 1A05
1M1
106
Studies Assigned Materials 1A06
107
B
1X07
C
A
109
Requests Help 1A09
108

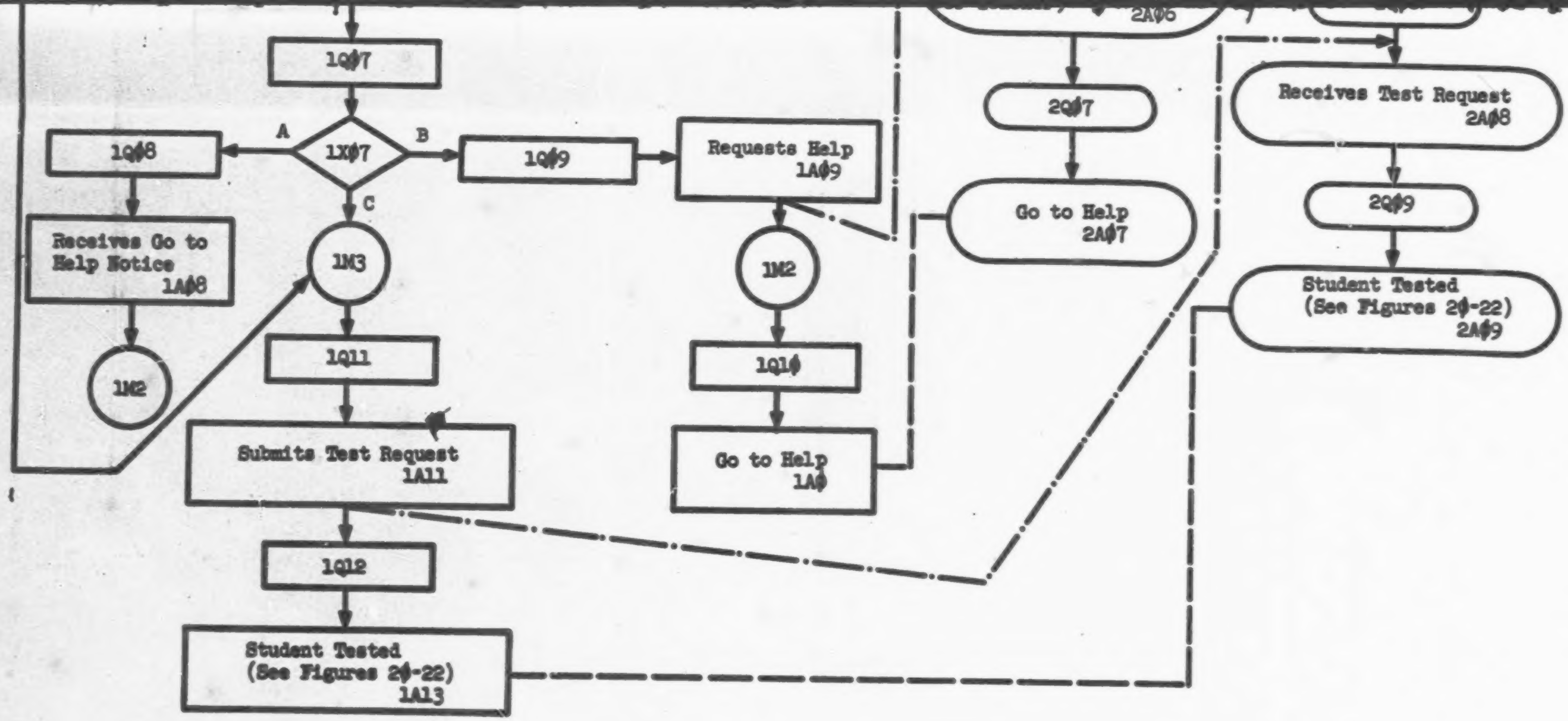

2A06
1Q07
1X07
A
B
C
1Q08
1Q09
Requests Help 1A09
2Q07
Receives Test Request 2A08
Receives Go to Help Notice 1A08
1M3
1M2
Go to Help 2A07
2Q09
1M2
1Q11
1Q10
Student Tested (See Figures 20-22) 2A09
Submits Test Request 1A11
Go to Help 1A0
1Q12
Student Tested (See Figures 20-22) 1A13

Figure 17. Grammar

When the student has successfully mastered the unit content (1Q09), he submits a test request (1A11) and is tested (1A10 and 2A08).

Literature

Progress through the literature section of language art courses is shown in Figure 18.

The first step in a literature unit is for the student to read the unit instruction (1A01). Sometimes he may not understand what he is to do (1Q03). If this occurs, the student submits a request for procedural help (1A03). These requests are received by the department (2A01) and are sorted and groups are scheduled (2A02). When the student receives his schedule (1A04), he reports and receives appropriate procedural help (1A05 and 2A04).

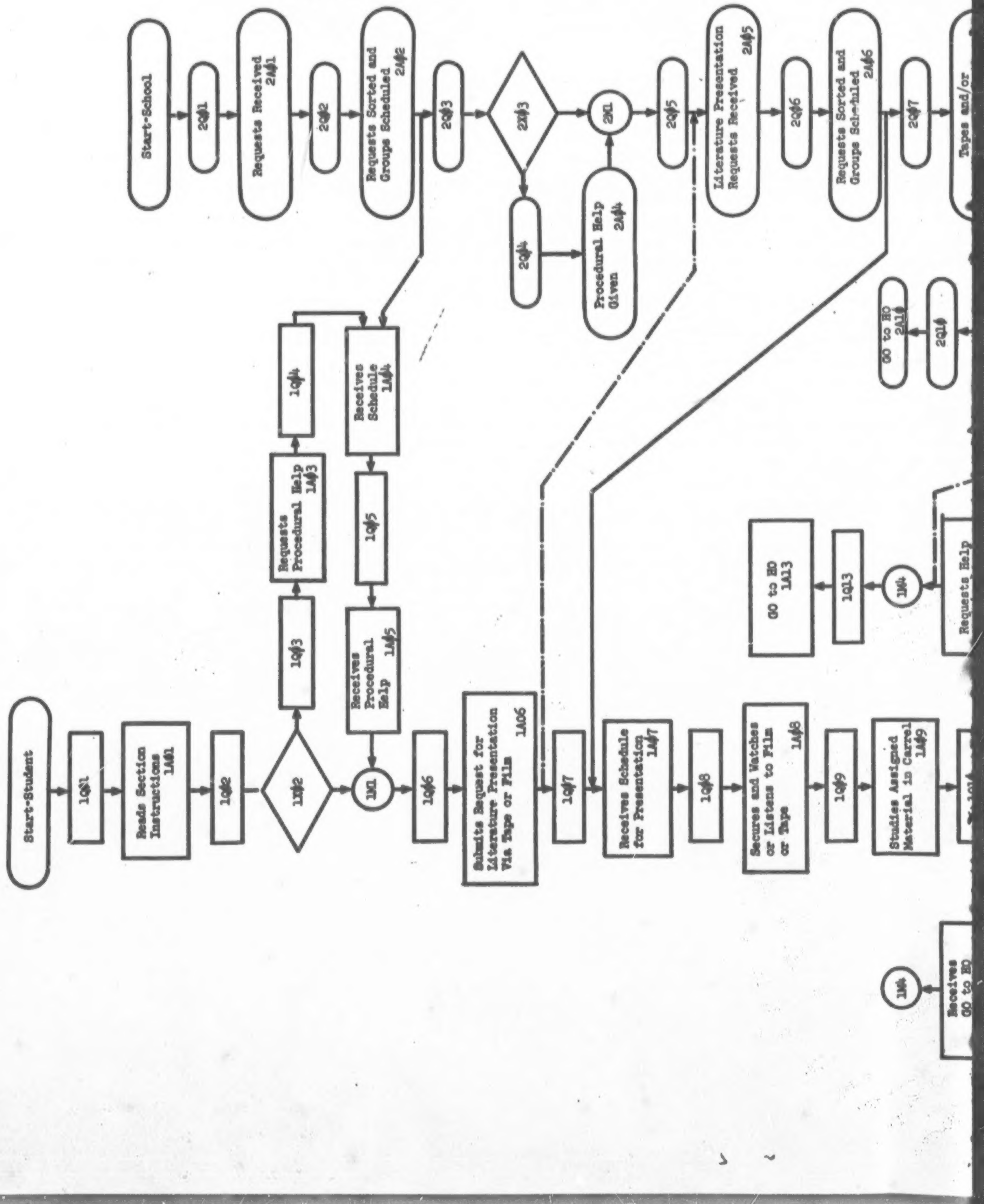
When the student has read and understands the instructions (1Q06), he requests a literature presentation (1A06) which is given via tape or film. When the school receives such requests (2A05), the requests are sorted and groups are scheduled (2A06). The students receive their schedules (1A07) and secure and observe the tape or film individually or in small groups (1A08 and 2A07). (Using tapes or films instead of lectures preserves the teacher's time for more challenging and significant work such as conducting discussions and helping students who are having specific difficulties.)

After observing the taped or filmed presentation, the student studies the assigned materials at his carrel (1A09). In some instances the student needs help with his studies (1Q11, 1Q12 and 2Q09). The determination that the student should receive help may be made either by the student (1A12) or by the school (1Q11), through the S&DS, or by an aide or a teacher. In either case he proceeds to a help routine (1A13 and 2A10).

On completion of his individual study of assigned materials the student submits a request for a discussion group (1A14) which is received (2A11) along with those of other students. All of these requests are sorted and groups are scheduled (2A12). The students receive their schedules (1A15) and meet in discussion groups with a teacher (1A16 and 2A13).

At the conclusion of the discussion, the student has a choice of any or all of several lines of action (1X17). He may re-study the literature material (1A18); conduct study in depth on the unit topic through related reading (1A19); have a group discussion with other students (1A22), in which case he must first schedule a room (1A20, 2A14, 2A15 and 1A21); or, he may proceed immediately to studying for and preparing the writing assignment for the unit (1A23).

During preparation of the writing assignment, the student may require help (1M2, 1M3, 2M2). If so, he enters the help routine (1A11 or 1A12 and 2A09).


Start-School
2Q01
Requests Received 2A01
2Q02
Requests Sorted and Groups Scheduled 2A02
2Q03
2X03
2N1
2Q04
Procedural Help Given 2A04
2Q05
Literature Presentation Requests Received 2A05
2Q06
Requests Sorted and Groups Scheduled 2A06
2Q07
Tapes and/or
GO to HO 2A10
2Q10
Start-Student
1Q01
Reads Section Instructions 1A01
1Q02
1X02
1N1
1Q03
Requests Procedural Help 1A03
1Q04
Receives Schedule 1A04
1Q05
Receives Procedural Help 1A05
1Q06
Submits Request for Literature Presentation Via Tape or Film 1A06
1Q07
Receives Schedule for Presentation 1A07
1Q08
Secures and Watches or Listens to Film or Tape 1A08
1Q09
Studies Assigned Material in Carrel 1A09
GO to HO 1A13
1Q13
1N4
Requests Help
Receives GO to HO
1N4

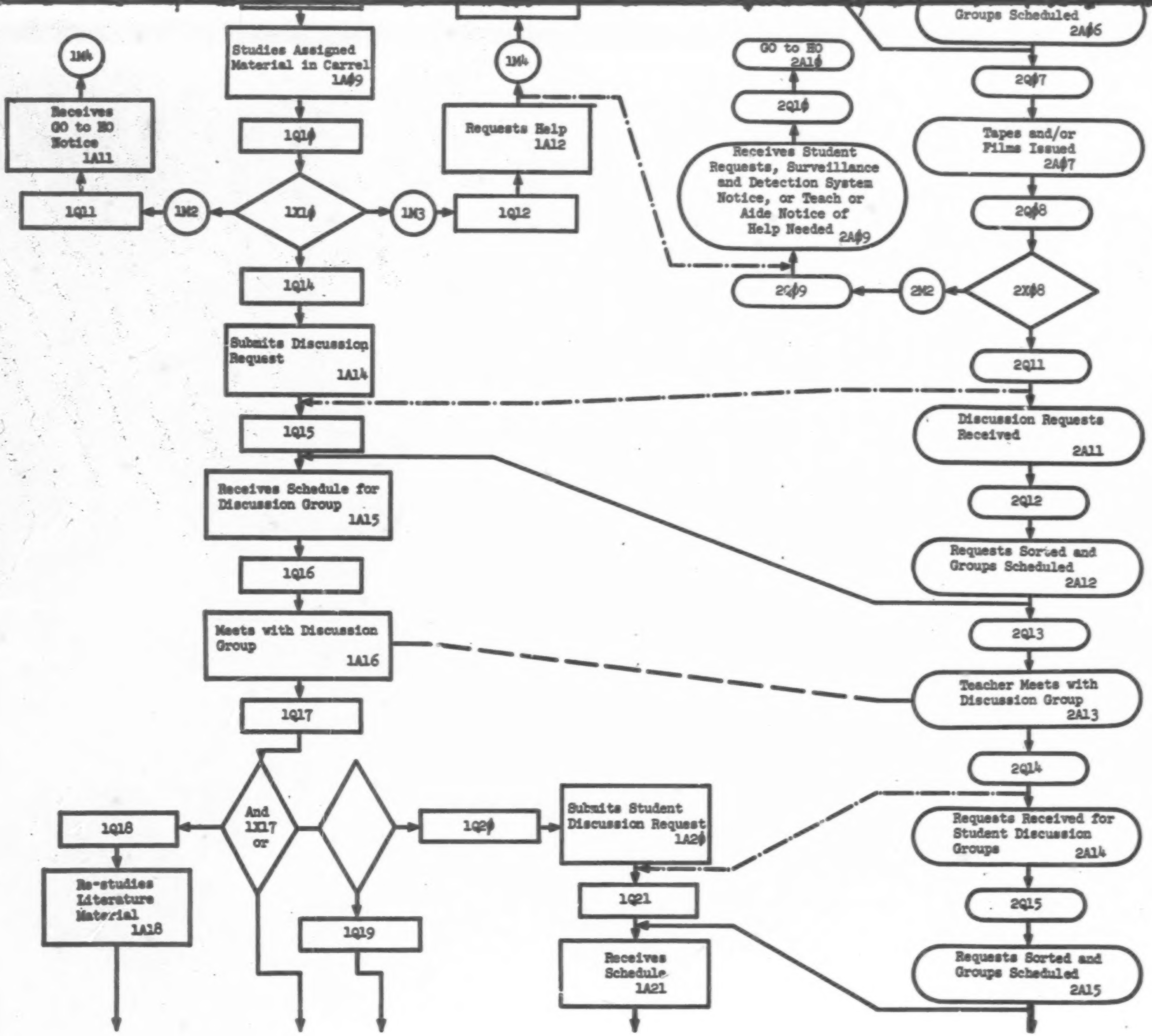
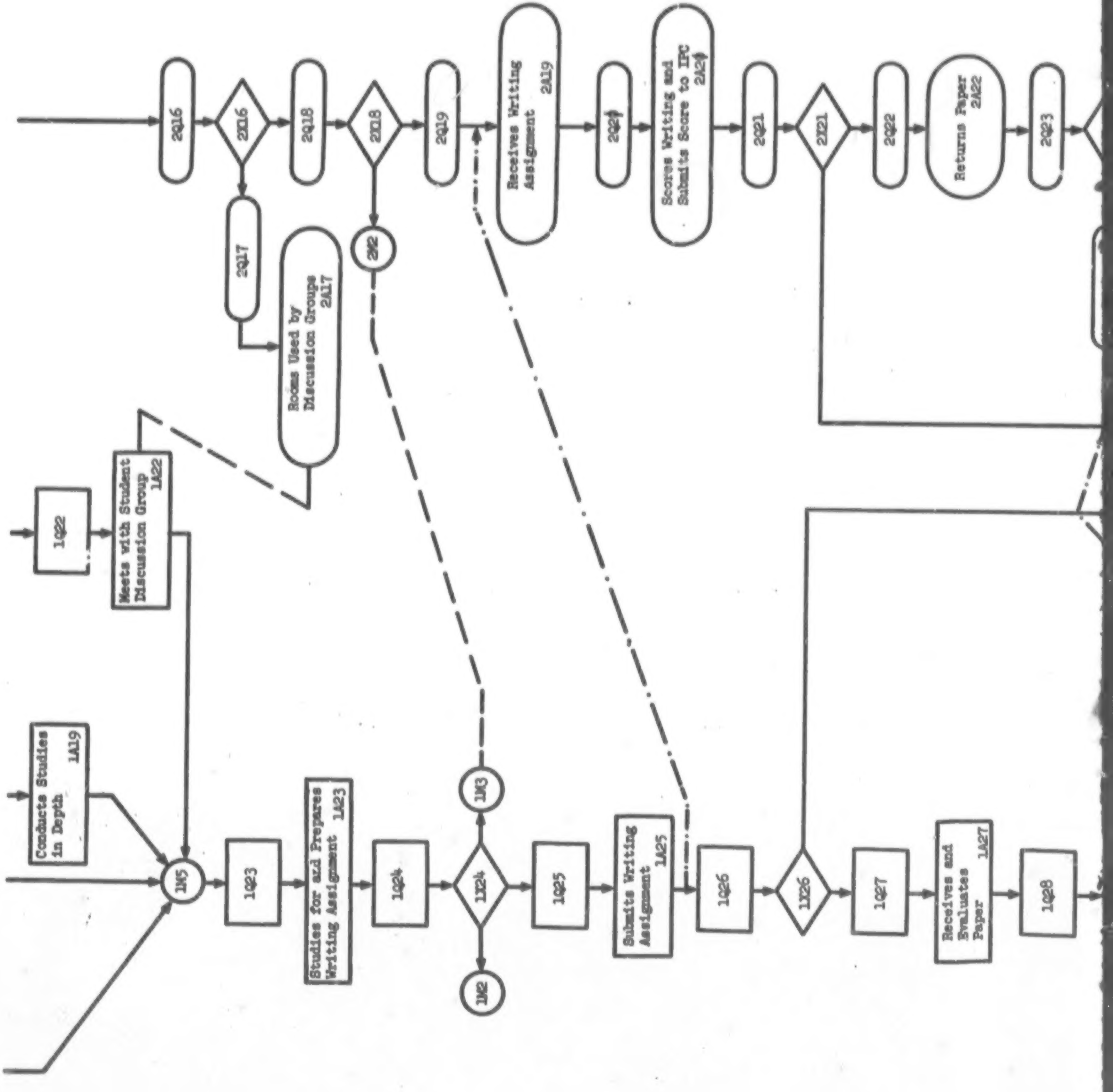

Receives GO to HO Notice 1A11
1M4
1Q11
1M2
Studies Assigned Material in Carrel 1A09
1Q10
1X10
1M3
1Q12
Requests Help 1A12
1M4
1Q14
Submits Discussion Request 1A14
1Q15
Receives Schedule for Discussion Group 1A15
1Q16
Meets with Discussion Group 1A16
1Q17
And 1X17 or
1Q18
Re-studies Literature Material 1A18
1Q19
1Q20
Submits Student Discussion Request 1A20
1Q21
Receives Schedule 1A21
GO to HO 2A10
2Q10
Receives Student Requests, Surveillance and Detection System Notice, or Teach or Aide Notice of Help Needed 2A09
2Q09
2M2
Groups Scheduled 2A06
2Q07
Tapes and/or Films Issued 2A07
2Q08
2X08
2Q11
Discussion Requests Received 2A11
2Q12
Requests Sorted and Groups Scheduled 2A12
2Q13
Teacher Meets with Discussion Group 2A13
2Q14
Requests Received for Student Discussion Groups 2A14
2Q15
Requests Sorted and Groups Scheduled 2A15

Figure 18. Literature


2Q16
2X16
2Q17
Rooms Used by Discussion Groups 2A17
2Q18
2X18
2M2
2Q19
Receives Writing Assignment 2A19
2Q20
Scores Writing and Submits Score to IPC 2A20
2Q21
2X21
2Q22
Returns Paper 2A22
2Q23
1Q22
Meets with Student Discussion Group 1A22
Conducts Studies in Depth 1A19
1M5
1Q23
Studies for and Prepares Writing Assignment 1A23
1Q24
1X24
1M3
1M2
1Q25
Submits Writing Assignment 1A25
1Q26
1X26
1Q27
Receives and Evaluates Paper 1A27
1Q28

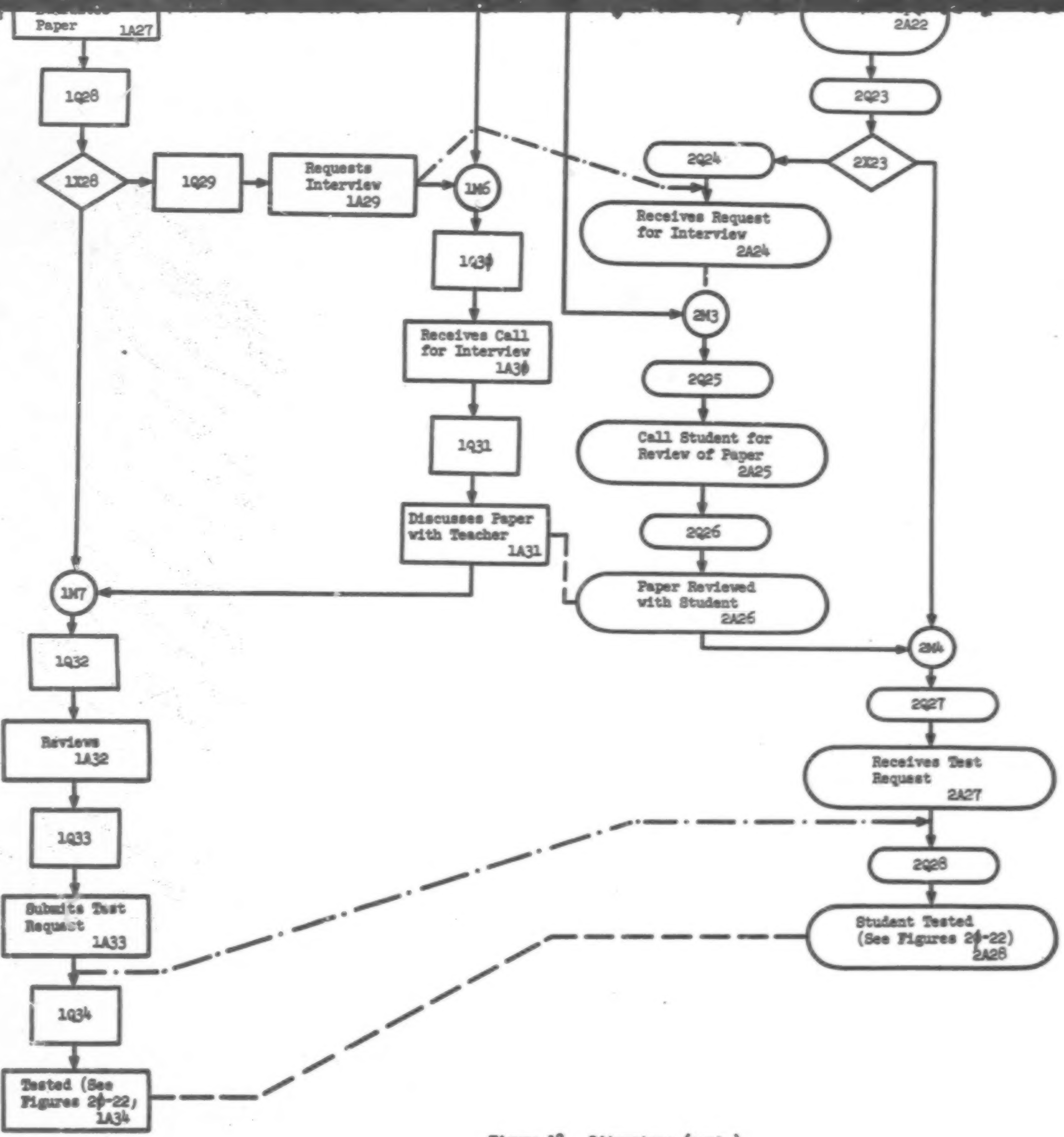

Paper 1A27
1Q28
1X28
1Q29
Requests Interview 1A29
1M6
1Q30
Receives Call for Interview 1A30
1Q31
Discusses Paper with Teacher 1A31
1M7
1Q32
Reviews 1A32
1Q33
Submits Test Request 1A33
1Q34
Tested (See Figures 20-22) 1A34
2A22
2Q23
2X23
2Q24
Receives Request for Interview 2A24
2M3
2Q25
Call Student for Review of Paper 2A25
2Q26
Paper Reviewed with Student 2A26
2M4
2Q27
Receives Test Request 2A27
2Q28
Student Tested (See Figures 20-22) 2A28

Figure 18. Literature (cont.)

When the writing assignment is received (2A19), it is scored and the score forwarded to the IPC (2A20). If the paper is satisfactory (2Q22), it is returned to the student (2A22); if not, the student is called in to have the paper reviewed (2A25). If the paper is judged satisfactory and returned to the student (2A22 and 1A27), he may accept it and proceed (1Q32), or he may have a question concerning the paper or the scoring (1Q29) in which case he requests an interview (1A29) and receives a return call from the teacher (2A25). Regardless of who requests the interview, the teacher and student discuss the paper (1A31 and 2A26) after which the student returns to his carrel and reviews the unit materials (1A32).

On completion of his review (1Q33), the student submits a test request (1A33 and 2A27) and is tested (1A34 and 2A28).

COURSE WORK--SPEECH

Although speech courses contain some definitely academic aspects, they also involve development of a skill. This latter goal requires that a speech course be structured somewhat differently from a thoroughly academic course such as language arts. Thus, the content of Figure 19, which illustrates progress through a speech course, is somewhat different from that of Figures 15-18.

As will become apparent from the following discussion, the facilities needed for a Continuous Progress School class in speech are different from those for a traditional class. They consist of a very small theater with a stage and with the theater surrounded by individual practice booths, audible via earphones, and visible to the teacher. With the possible exception of live lectures, on any given day the teacher is in the theater audience with a portion of the group. Part of this theater group is an audience of critics. (Each student serves as an adjudicator, evaluating the work of the performers.) The other part of the theater group takes turns performing. On this same day, some of the remaining portion of the total group are practicing in booths, individually or in small groups. Others are in their carrels or the Instructional Materials Center (IMC) preparing future presentations. The teacher's attention is directed primarily toward the performing students, but he may also check, using his earphones, the performance of individuals or groups of students in the practice booths.

In successive steps a student (a) has a presentation--by tape, film or live lecture, (b) serves as an adjudicator, (c) works in his carrel or in the IMC preparing material for an oral presentation, (d) practices in a booth, and (e) performs. As in other courses, the student may require help in developing the desired skill.

To begin his speech course, the student first reads the instructions (1A01), and then submits a "ready to begin" form (1A02). When these forms are received by the school (2A01), they are sorted and groups are scheduled (2A02 and 1A03). Because of the nature of the speech course the groups may be larger and more permanent than those in a language arts course.

As specified by his schedule, the student begins his class work under the direction of a speech teacher. As indicated above, in the Continuous Progress School this work involves five types of activities: (a) attending a tape, film or live presentation, including a model of the performance desired (1A04); (b) being an adjudicator, evaluating others (1A05); (c) preparing materials for oral presentation (1A06); (d) practicing on an individual or group basis (1A11); and (e) performing (1A13).

If the student needs help, either by his own recognition (1Q10) or by the school's determination (1Q08 and 2Q05), he enters a help routine (1A10 or 1A08 and 1A09). In a course such as speech, S&DS recognition of a student needing help may be a little different from in a standard academic course. In a standard course in the Continuous Progress School, the student decides when he is ready to take a test; in a course such as speech, completion of a unit is not predicted simply on acquisition of subject matter. For this reason, the instructor may elect to keep a student in a given unit beyond the normal time. Because of this, the S&DS should be able to alert the instructor when he is retaining the student sufficiently long to endanger or encroach on the remainder of the student's program. It should also be able to inform the instructor when the student is spending longer than a reasonable amount of time preparing for a presentation.

As a result of student performance in giving a speech, the instructor may decide that he has completed a unit, from a performance standpoint (1Q16 and 2Q10); that he should prepare and give another speech (Branch A from 1X14 to 1M1, and Branch A from 2X08 to 2M1); or, that he needs help (1Q15 and 2Q09). If he needs to do so, the student cycles once more through preparation and performance, beginning with 1A04 - "Receives instruction and model." If he needs special help, the student is referred to an aide (1A15 and 2A09). If the student has completed the unit, he requests a test (1A16 and 2A10) and is tested (1A17 and 2A11).

Summary and Discussion

In this section of the report we have presented student progress through a course having both academic and skill implications. While many of the problems are similar to those in language arts, some are different. Certainly the role of the teacher is different with the teacher exercising considerable judgment and control over student progress, whereas in a purely academic course student progress depends to a much greater degree on his ability to perform on tests.

As the role of the teacher is heightened, the role of the S&DS is correspondingly decreased. This role is largely reduced to that of reminding the teacher that a student cannot stay indefinitely in a given unit.

In a speech class, the student spends relatively little of his time in his carrel. The normal five periods per week are spent in contact with the teacher. Only study of concepts and research for and preparation of speeches are accomplished apart from the teacher. Much of this work is done in the Materials Center.

The speech course which we have presented might be considered introductory in nature. More advanced courses concentrate to a greater degree either on skills or on concept development. In case this is done, progress through the course could be changed some; however, Figure 19 is considered quite representative for speech courses.

SPECIAL ACADEMIC PROCEDURES

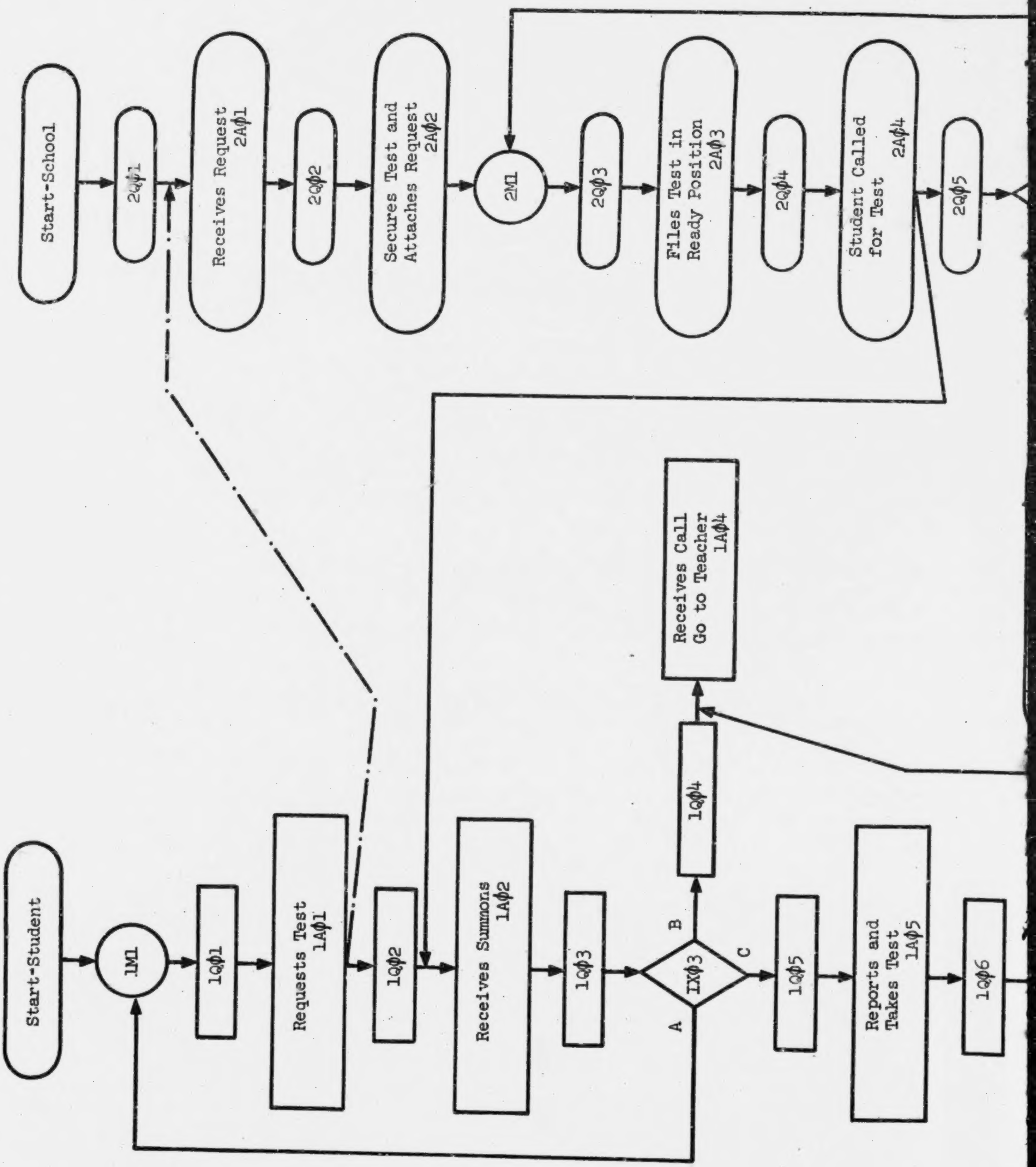
This section describes three special academic procedures: testing, ending a unit, and helping the student who encounters a problem beyond his apparent ability.

Testing

Testing in the Continuous Progress School is a rather involved operation which includes administration of tests, test scoring, and test interpretation and recording.

Test Administration. As has been indicated earlier, when the student is ready, he requests a test. This may be either a unit test or a summary test which includes a portion or all of a course. The test-requesting step is repeated as the first step (1A01) in Figure 20. The request is received by the appropriate academic testing unit (2A01) where the correct test is secured and attached to the request (2A02). The student is scheduled, the test placed in the ready position (2A03), and he is informed when he should report for testing (2A04).

He receives the summons for testing (1A02) and either does or does not report at the scheduled time (1X03). If he does not report and this is the first time he has failed to do so (Branch A to 1Q01), his test is simply replaced in the ready position (2A03); he makes a second request for the test (1A01), and he is rescheduled (2A03). If this is the second time he has failed to take this test (Branch B to 1Q04 and 2Q06), a report is sent to a teacher (2A06) and the student is called in for a conference with the teacher (2A07) and 1A04). Of course, the usual alternative is that the student reports as scheduled and takes his test (1A05 and 2A08), turns it in (1A06 and 2A09), and then waits for it to be scored (2A10) so that he can receive the interpretation (1A07).


Start-School
2Q01
Receives Request 2A01
2Q02
Secures Test and Attaches Request 2A02
2M1
2Q03
Files Test in Ready Position 2A03
2Q04
Student Called for Test 2A04
2Q05
Receives Call Go to Teacher 1A04
1Q04
Start-Student
1M1
1Q01
Requests Test 1A01
1Q02
Receives Summons 1A02
1Q03
B
IX03
C
A
1Q05
Reports and Takes Test 1A05
1Q06

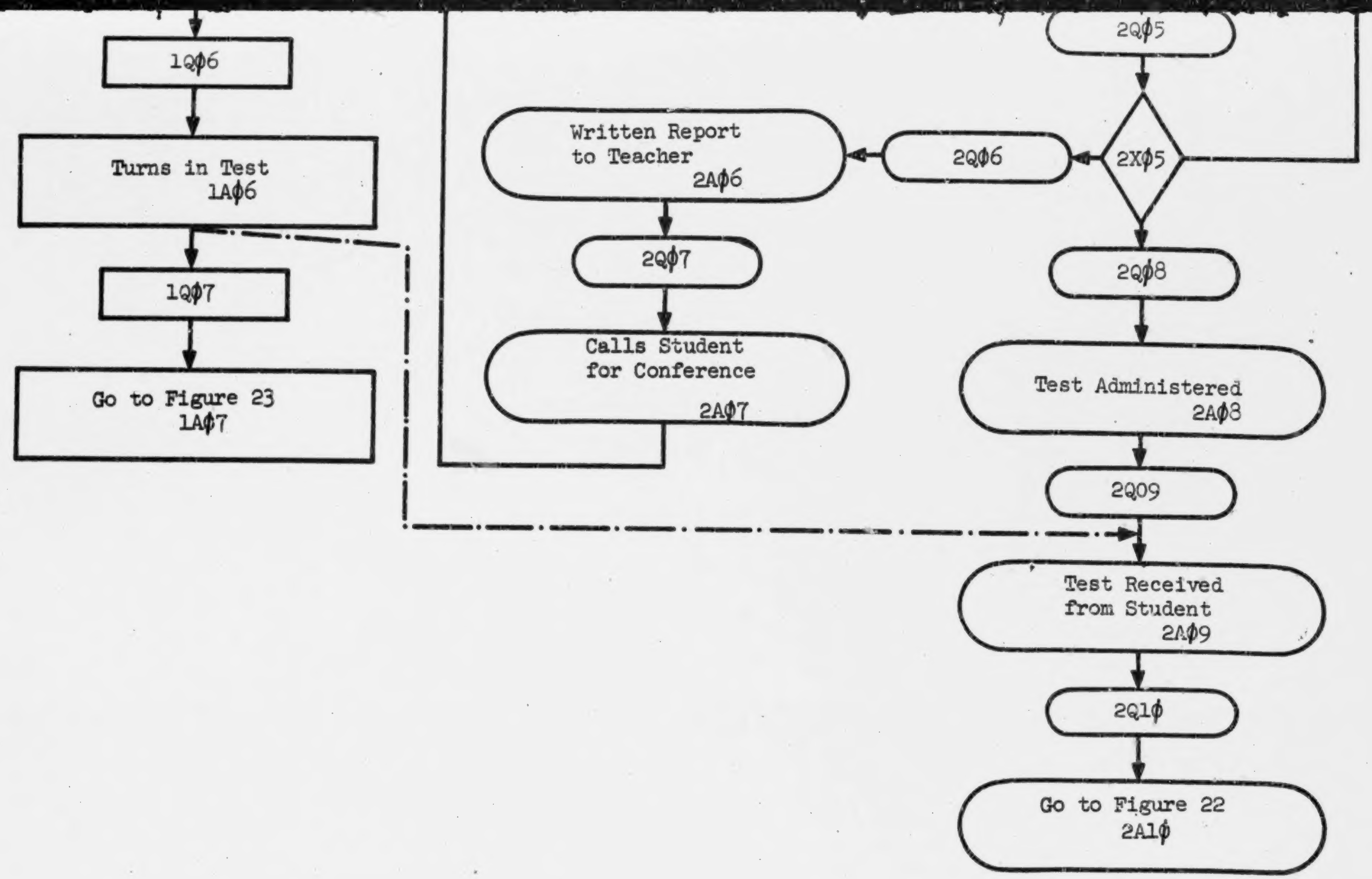

1Q06
Turns in Test 1A06
1Q07
Go to Figure 23 1A07
Written Report to Teacher 2A06
2Q07
Calls Student for Conference 2A07
2Q05
2X05
2Q06
2Q08
Test Administered 2A08
2Q09
Test Received from Student 2A09
2Q10
Go to Figure 22 2A10

Figure 20. Testing

Test Scoring. The test scoring process, including tentative recording of the score, is shown in Figure 21.

When a test has been completed and turned in (2Q01), it is taken to the scoring area (2A01) where it is given to an appropriate scorer (2A02), scored (2A03), and the scoring checked (2A04).

Although many tests involve only one type of scoring, others involve two or more, each of which requires a different level or kind of skill. For example, a mathematics test may contain a multiple choice section and also a computational section which requires the student to compute and write out his answer. The multiple choice section can easily be scored by a clerk. The computational section requires the skill of a teacher or an aide who can locate the actual error and evaluate its seriousness.

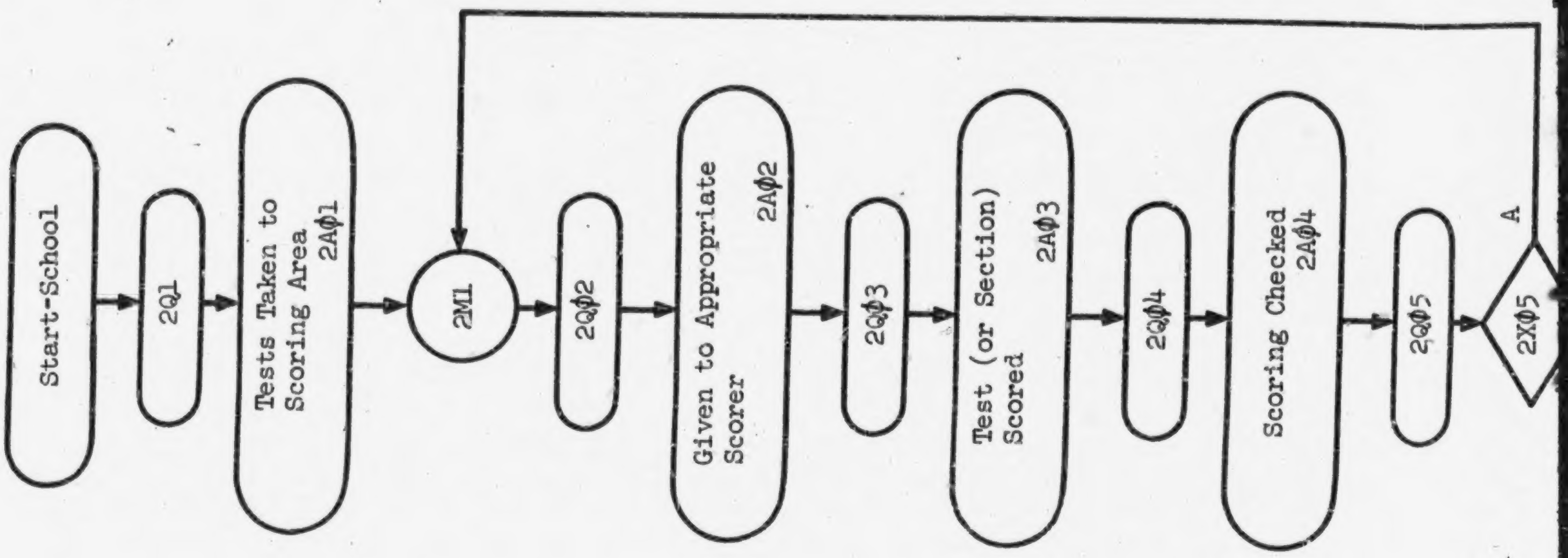
Provision is made at 2X05 for a test having more than one section. When the first section has been scored, the test is returned via Branch A and 2M1 to an appropriate scorer for the next section (2A02). The entire process is repeated until all sections have been scored (2Q06). The score is then tentatively recorded (2A06).

At this stage, a choice is required (1X01 and 2X07). If the student achieved his expectancy level (1Q02 and 2Q10), his test is returned to him for review (1A02 and 2A10). If the student failed the test--received a score below 60--or failed for the second time to meet his expectancy level (1Q04 and 2Q08), he is called in for a conference (1A04 and 2A08). In either event, the next step is test interpretation and final recording (Figure 22).

Test Interpretation and Recording. Figure 22 depicts the procedures followed in interpreting tests to students and in recording their grades. Students are left in the same groupings (1Q01 and 2Q06 versus 1Q07 and 2Q01) which concluded Figure 21: those whose test scores were satisfactory (or called for a simple review, i.e., those students who failed for the first time to meet the expectancy level on this test) and those whose scores were unsatisfactory.

Those students who achieve satisfactory scores, or who fail for the first time to meet their expectancy level and hence receive their tests for review (1Q01 and 2Q06), are either content with their test review (1Q02 and 2Q07) so that they return the test (1A02 and 2A07) and proceed (1Q03 and 2Q08) or they are discontent with the test score (1Q04 and 2A09), request a conference (1A04), and meet with their teacher (1A05).

Based on the conference, the student may be satisfied (Branch A from 1X06 to 1M3 to 1M6 to 1Q13) and proceed (1A13); or, in some rare instances, the teacher may decide the scoring was wrong (Branch C via 1M5 to 1Q12 and Branch B from 2X11 via 2M3 to 2Q12) and revise the score (1A12); or the student's


Start-School
2Q1
Tests Taken to Scoring Area 2A01
2M1
2Q02
Given to Appropriate Scorer 2A02
2Q03
Test (or Section) Scored 2A03
2Q04
Scoring Checked 2A04
2Q05
2X05
A

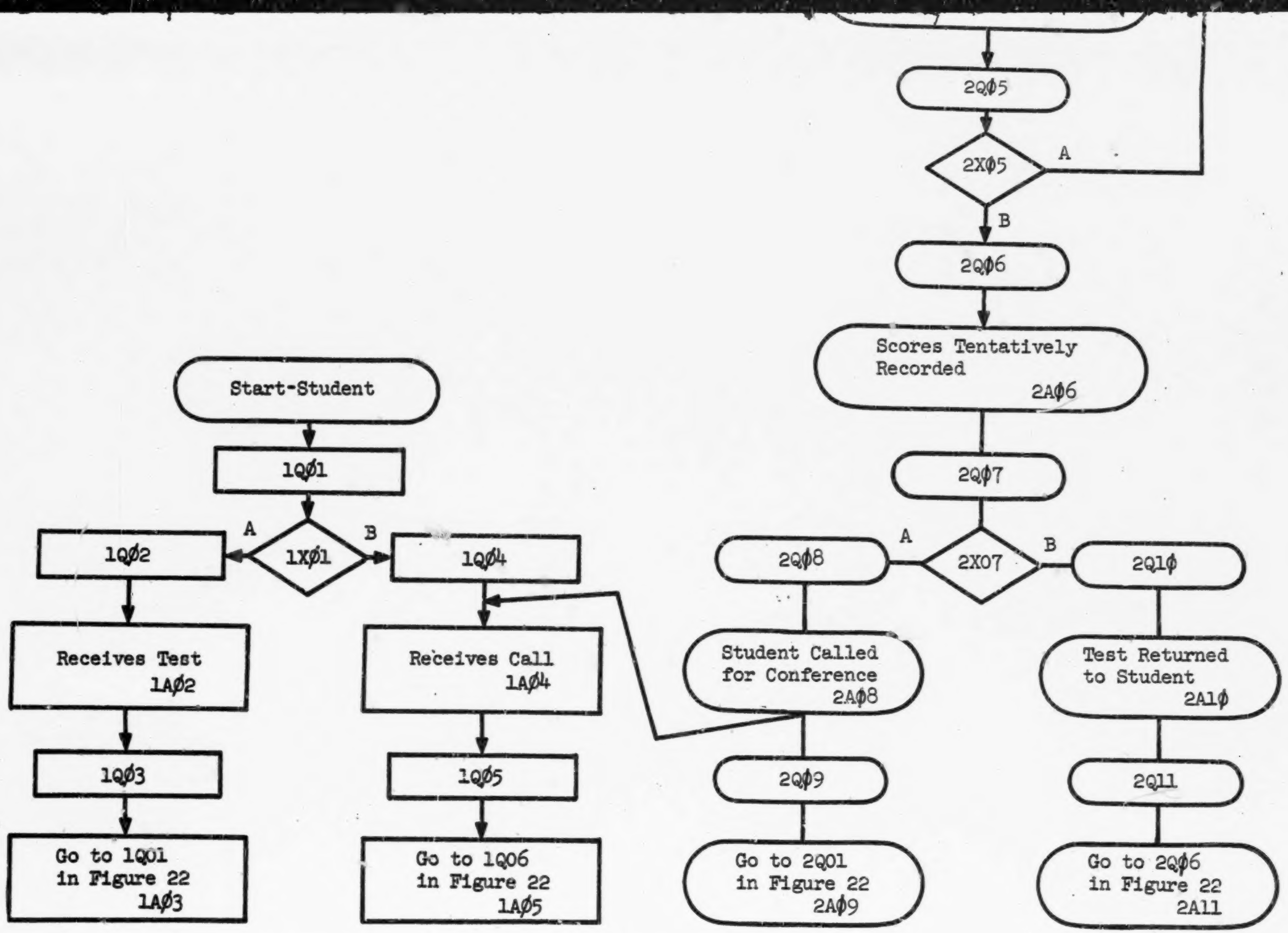

2Q05
2X05
A
B
2Q06
Scores Tentatively Recorded 2A06
2Q07
Start-Student
1Q01
A
1X01
B
1Q02
1Q04
A
2X07
B
2Q08
2Q10
Receives Test 1A02
Receives Call 1A04
Student Called for Conference 2A08
Test Returned to Student 2A10
1Q03
1Q05
2Q09
2Q11
Go to 1Q01 in Figure 22 1A03
Go to 1Q06 in Figure 22 1A05
Go to 2Q01 in Figure 22 2A09
Go to 2Q06 in Figure 22 2A11

Figure 21. Test Scoring

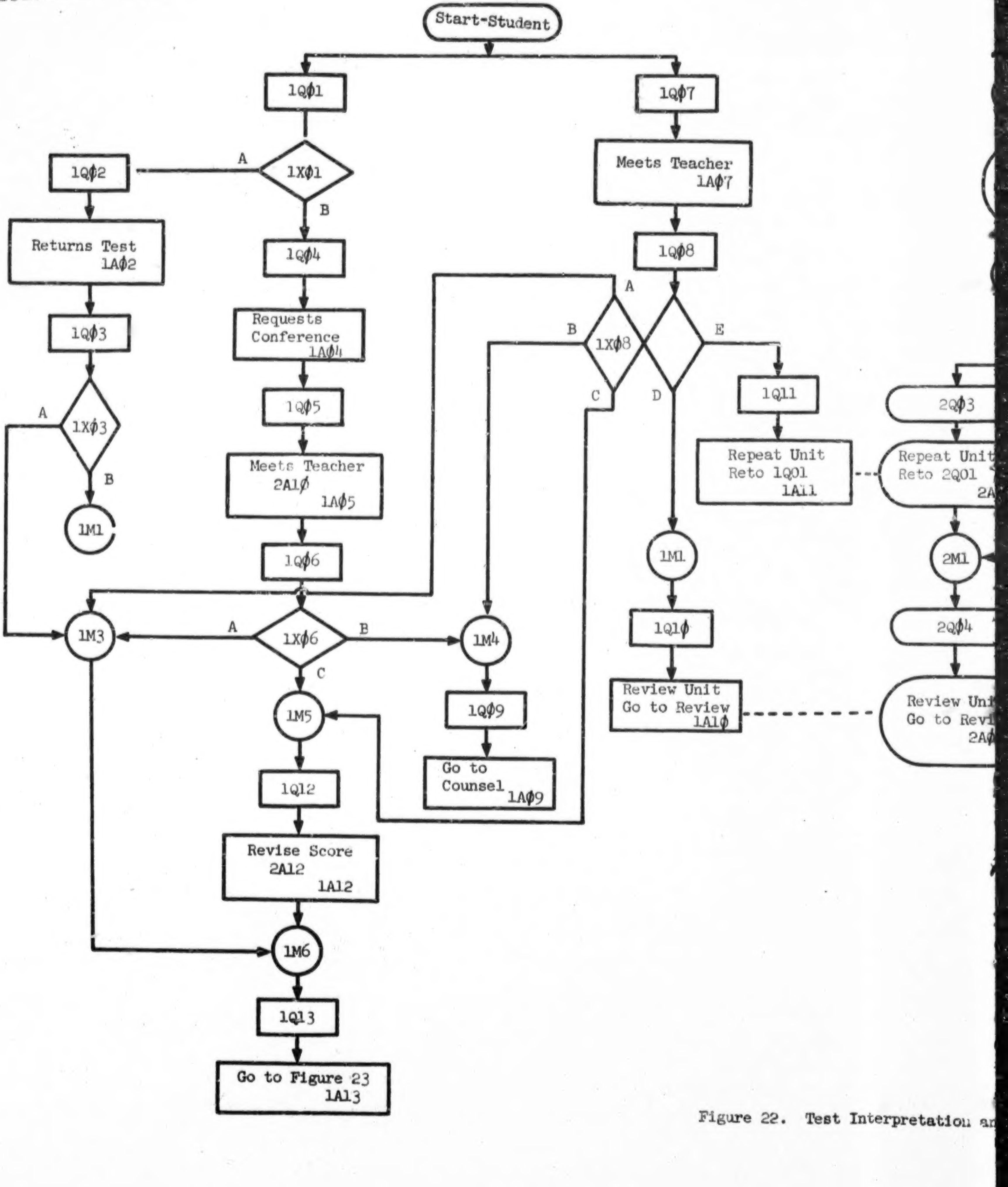
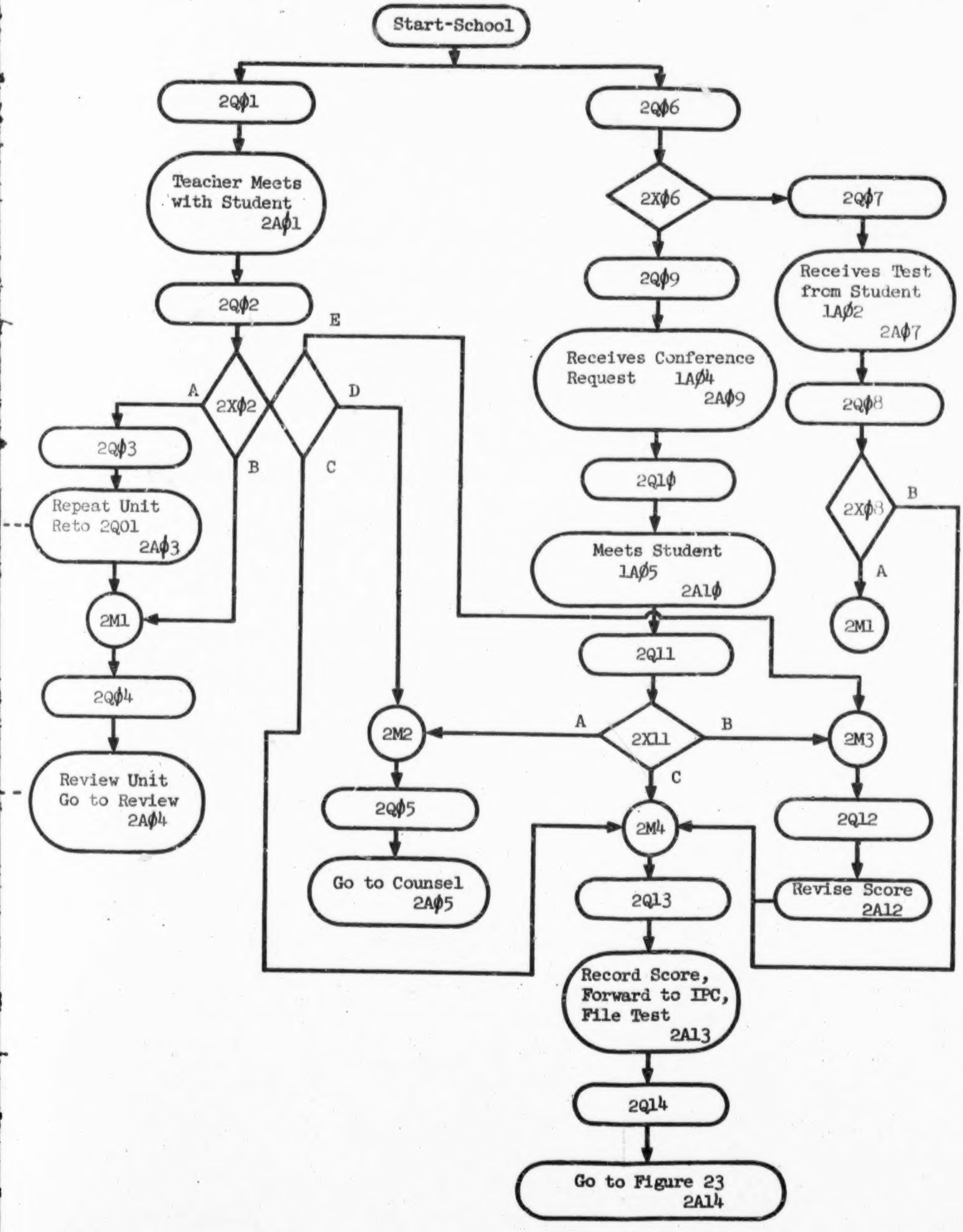

Start-Student
1Q01
1Q07
A
1X01
B
1Q02
Returns Test 1A02
1Q03
A
1X03
B
1M1
1Q04
Requests Conference 1A04
1Q05
Meets Teacher 2A10 1A05
1Q06
Meets Teacher 1A07
1Q08
A
B
1X08
C
D
E
1Q11
Repeat Unit Reto 1Q01 1A11
2Q03
Repeat Unit Reto 2Q01 2A
1M1
2M1
1Q10
2Q04
Review Unit Go to Review 1A10
Review Uni Go to Revi 2A0
1M3
A
1X06
B
C
1M4
1M5
1Q09
Go to Counsel 1A09
1Q12
Revise Score 2A12 1A12
1M6
1Q13
Go to Figure 23 1A13

Figure 22. Test Interpretation an


Start-School
2Q01
2Q06
Teacher Meets with Student 2A01
2X06
2Q07
2Q09
Receives Test from Student 1A02 2A07
2Q02
E
Receives Conference Request 1A04 2A09
A
2X02
D
2Q08
2Q03
B
C
2Q10
B
2X08
Repeat Unit Reto 2Q01 2A03
Meets Student 1A05 2A10
A
2M1
2M1
2Q11
2Q04
A
2M2
2X11
B
2M3
C
Review Unit Go to Review 2A04
2Q05
2M4
2Q12
Go to Counsel 2A05
2Q13
Revise Score 2A12
Record Score, Forward to IPC, File Test 2A13
2Q14
Go to Figure 23 2A14

nterpretation and Recording

behavior may be such that the teacher decides the only course left is to refer him to a counselor (Branch B from 1X06 to 1A09 and Branch A from 2X11 to 2A05).

Those students who are satisfied with the initial scoring and return the test (1A02) comprise two groups: (a) those who passed the test (Branch A from 1X03 via 1M3 and 1M6 to 1Q13) and proceed to terminate the unit (1A13) and (b) those who have failed for the first time to achieve their expectancy level (1M1 to 1Q10). The latter group is given materials to review the unit (1A10).

Those students who made unsatisfactory scores--i.e., who failed the tests or who failed for the second time to meet their expectancy level--are called in (1Q07 and 2Q01) to meet with the teacher (1A07 and 2A01). As a result of this conference, five lines of action are available from 1X08 and 2X02: (a) the teacher can decide that, despite his failure, the student should proceed with the next unit (Branch A via 1M3 to 1A13 and Branch C via 2M4 to 2A13); (b) the teacher can decide the problem is either non-academic or that the student may be in a class too advanced for him and refer him to a counselor (Branch B via 1M4 to 1A09 and Branch D via 2M2 to 2A05); (c) the teacher can decide the test was scored incorrectly, revise the score (Branch C via 1M5 to 1A12 and Branch E via 2M3 to 2A12) and permit the student to proceed (1A13 and 2A13); (d) the student may be asked to review the unit, using special materials (Branch D to 1A10 and Branch B to 2A04); (e) the student's performance may be so poor that he is asked to repeat the unit, simply going through the same materials again (Branch E. to 1A11 and Branch A to 2A03).

When the test has been returned and the teacher is satisfied the scoring has been done correctly (2Q13), the score is permanently recorded and forwarded to the IPC, and the test is filed (2A13). Action then moves to the "end of unit" routine (1A13 and 2A14).

Discussion. In this sub-section, the description of academic achievement testing as it is conducted in the Continuous Progress School has pointed out some of the ways that this process differs from that in a traditional school. These differences were seen in such aspects as the student's scheduling and taking this test on an individual basis; test administration and scoring being done in a separate section of the school; the student being required to meet an expectancy level rather than simply to pass a test; and provision being made for multiple actions based on the precise nature of the test results and the student's reaction to these results. All of these differences are implicit in the very nature and philosophy of the Continuous Progress School and are essential to its success.

Termination Block for a Unit or Course

When a student completes a unit, including passing the test, the IPC analyzes his record and assigns the next step. This process is shown in Figure 23.

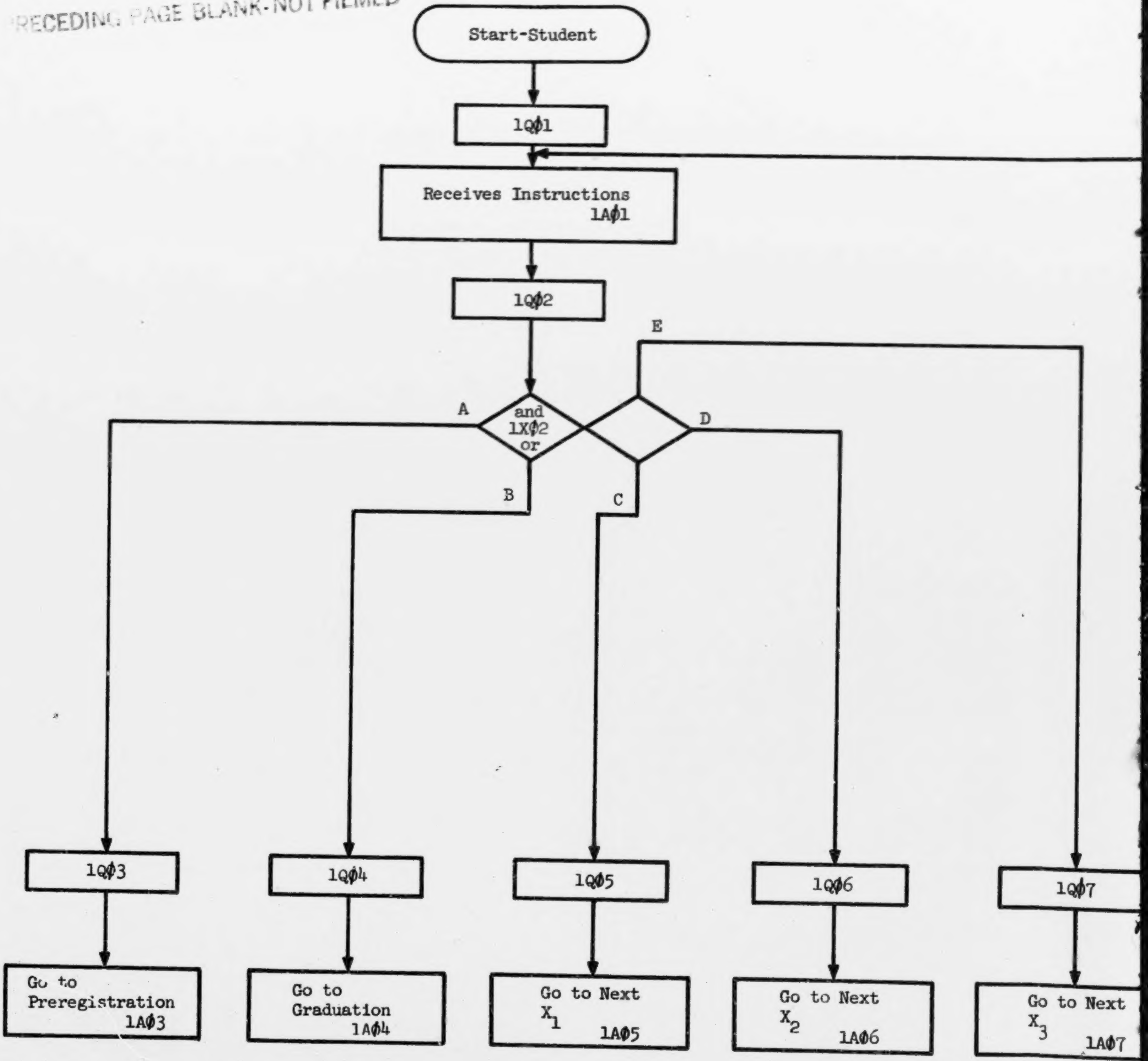
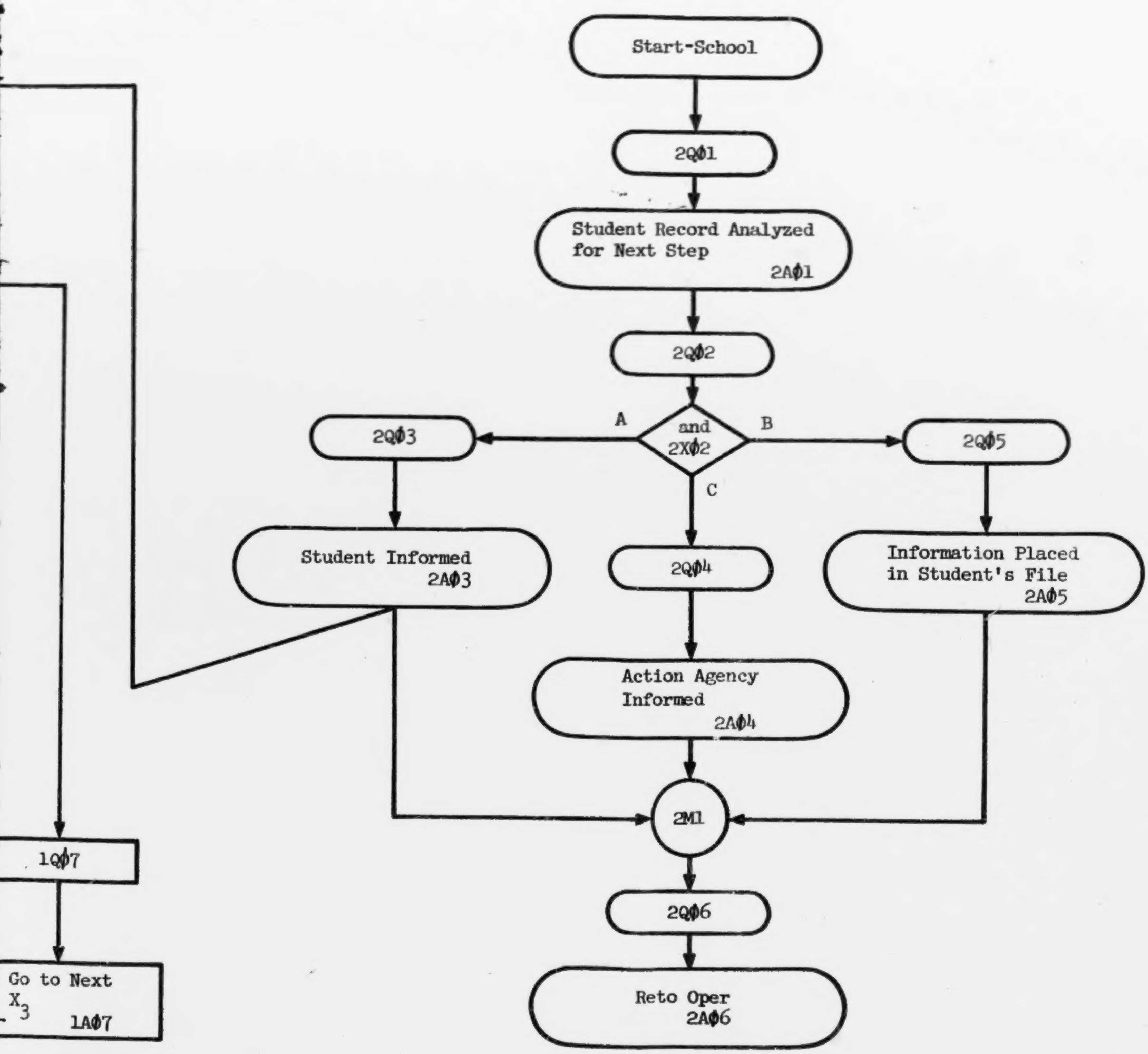

Start-Student
1Q01
Receives Instructions
1A01
1Q02
E
A
and
1X02
or
D
B
C
1Q03
1Q04
1Q05
1Q06
1Q07
Go to Preregistration
1A03
Go to Graduation
1A04
Go to Next X_1
1A05
Go to Next X_2
1A06
Go to Next X_3
1A07

Figure 23. Termination Block for a Un


Start-School
2Q01
Student Record Analyzed for Next Step
2A01
2Q02
and
2X02
A
B
C
2Q03
Student Informed
2A03
2Q04
Action Agency Informed
2A04
2Q05
Information Placed in Student's File
2A05
2M1
2Q06
Reto Oper
2A06
1Q07
Go to Next
X_3
1A07

ock for a Unit or Course

The first action involves analyzing the student record and deciding what action he should take next (2A01). This information is then relayed to the student (2A03), to the appropriate action agency (2A04), and to the student's own file in the IPC (2A05). The IPC then returns to its normal operating state (2A06).

When the student receives his next assignment from the IPC (1A01), he reports to the appropriate action agency. He may need to re-register, in which case he goes to a counselor for the preregistration function (1A03); he may be ready for graduation, in which case he reports to a counselor for the graduation function (1A04); he may need to continue the next unit of this same course or section of the course, e.g., grammar (1A05); he may need to go to the next unit of another section of the course, e.g., work-study skills (1A06); or he may need to start the next unit of still a third section of the course, e.g., literature (1A07). Still another possibility is that the student should continue in two or more of the activities mentioned. Provision for this is made at split 1X02.

Based on information given him the student follows one of the actions described. The appropriate action agency, (2A04) is ready for him, having been alerted by the IPC. In this manner, the student can progress from one unit or course to the next with a minimum of interruption.

The Help Sequence

In various sections of this document, reference has been made to the opportunity given a student to request help or to receive help in response to a school-detected need. In Figure 24 the process of seeking and receiving academic help is portrayed.

If we start with the school strand, the first point of importance is the first split (2X01) which shows three different aspects of the school--aides (Branch A to 2Q06), teachers (Branch C to 2Q10); and the S&DS (Branch C to 2Q02)--which play somewhat independent but related roles in the help sequence.

The S&DS is responsible for making frequent, periodic comparisons of the student's progress with his expectancy level (2A02) and, when the student gets too far behind (2Q05) for informing the teacher (2A05). If a student is meeting his expectancy level (2Q04) the S&DS cycles through its other checks (2A04).

The teacher also, in the course of his work with a student, may recognize that the student requires special help (2Q11) and may take action on this recognition (2A11).

If the student, himself, recognizes that he needs help (1Q01), he signals the aide (1A01) who, if he sees the signal and is able to comply (2Q07), helps the student (1A04 and 2A07). In working with the student, the aide may be able

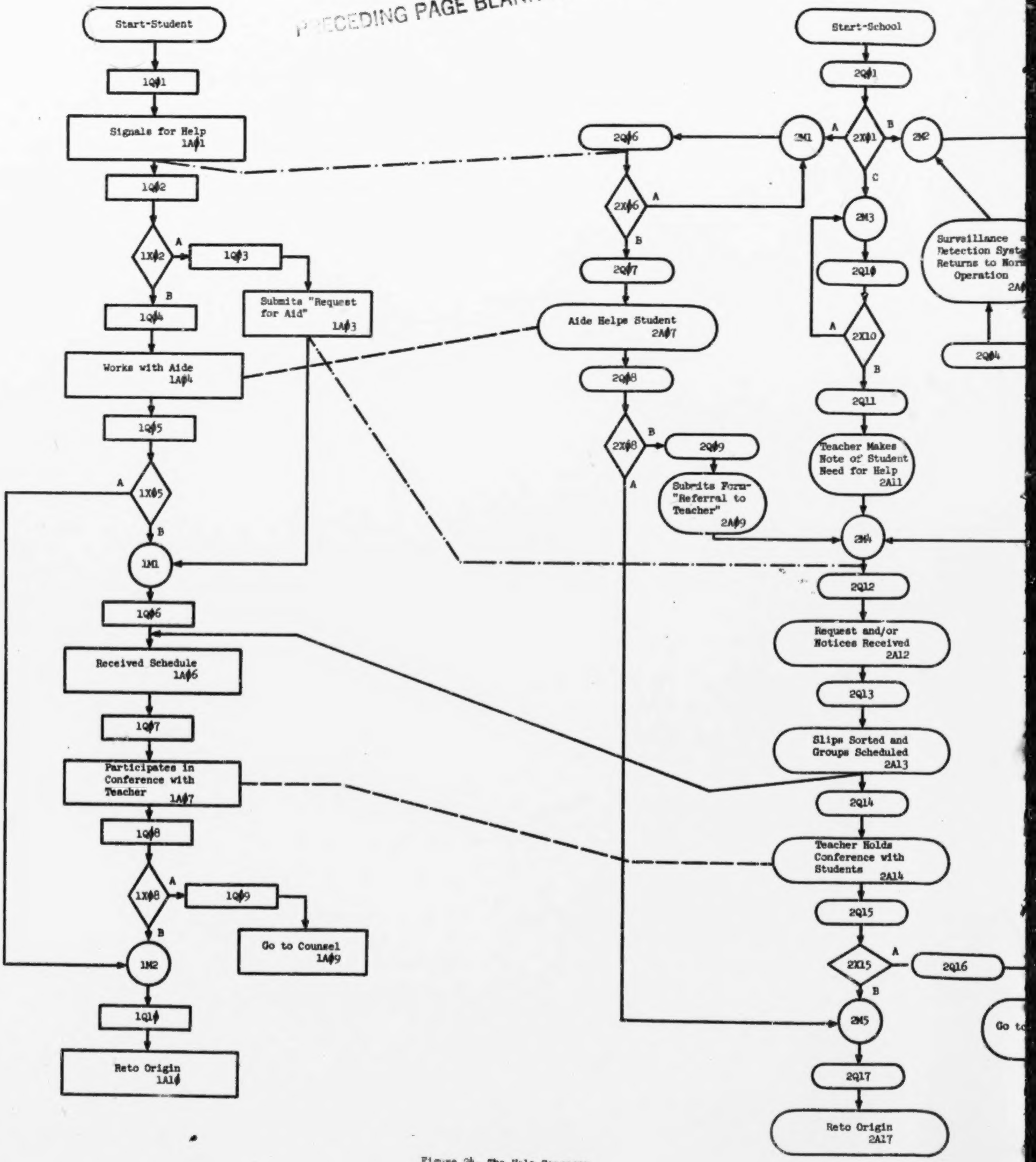
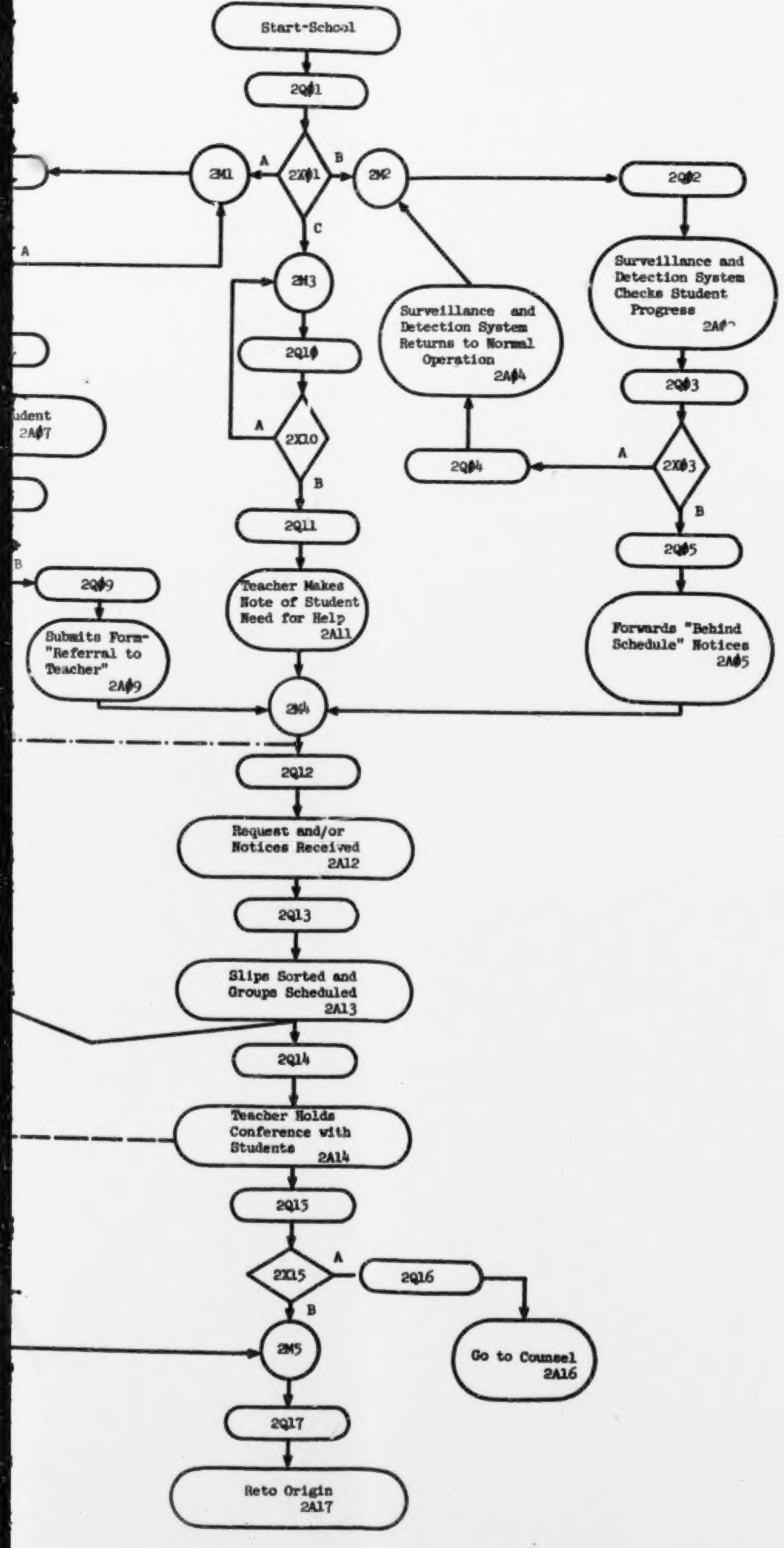

Start-Student
1Q01
Signals for Help 1A01
1Q02
1X02
A
B
1Q03
Submits "Request for Aid" 1A03
1Q04
Works with Aide 1A04
1Q05
1X05
A
B
1M1
1Q06
Received Schedule 1A06
1Q07
Participates in Conference with Teacher 1A07
1Q08
1X08
A
B
1Q09
Go to Counsel 1A09
1M2
1Q10
Reto Origin 1A10
Start-School
2Q01
2X01
A
B
C
2M1
2M2
2Q06
2X06
A
B
2Q07
Aide Helps Student 2A07
2Q08
2X08
B
A
2Q09
Submits Form-"Referral to Teacher" 2A09
2M3
2Q10
2X10
A
B
2Q11
Teacher Makes Note of Student Need for Help 2A11
Surveillance a
Detection Syst
Returns to Norm
Operation
2A
2Q04
2M4
2Q12
Request and/or Notices Received 2A12
2Q13
Slips Sorted and Groups Scheduled 2A13
2Q14
Teacher Holds Conference with Students 2A14
2Q15
2X15
A
B
2Q16
2M5
Go t
2Q17
Reto Origin 2A17

Figure 24. The Help Sequence

ED


Start-School
2Q01
2M1
A
2X01
B
2M2
2Q02
C
Surveillance and Detection System Checks Student Progress
2A02
2M3
Surveillance and Detection System Returns to Normal Operation
2A04
2Q10
2Q03
udent
2A07
A
2X10
2Q04
A
2X03
B
B
2Q11
2Q05
B
2Q09
Teacher Makes Note of Student Need for Help
2A11
Forwards "Behind Schedule" Notices
2A05
Submits Form-"Referral to Teacher"
2A09
2M4
2Q12
Request and/or Notices Received
2A12
2Q13
Slips Sorted and Groups Scheduled
2A13
2Q14
Teacher Holds Conference with Students
2A14
2Q15
A
2X15
2Q16
B
2M5
Go to Counsel
2A16
2Q17
Reto Origin
2A17

to provide needed help (Branch A from 1X05 to 1Q10 and Branch A from 2X08 to 2Q17) so that the student can return to his studies (1A10). If the aide works with the student but cannot help him past the problem, he submits a "referral to teacher" form (Branch B from 2X08 to 2A09).

On some occasions the aide either does not see the student's signal or does not have opportunity to honor it (Branch A from 1X02 to 1Q03). In this case, the student submits a "request for aid" form (1A03).

When the various forms and/or signals are received (2A12), they are sorted and groups are scheduled (2A13 and 1A06). The teacher meets with the students as individuals or in groups (2A14 and 1A07). In most instances the teacher is able to help the student (1Q10). In very rare instances the teacher must refer the student to a counselor for special help (2A16 and 1A09).

Surveillance and Detection System Examination for Graduation

The activities of the Surveillance and Detection System in checking a student for graduation is a final example of a special procedure (Figure 25). The System first checks a student to determine whether he has met graduation requirements (2A01). If not, the System makes a list of the requirements not filled (2A03) and forwards copies to the student and to his registration counselor (2A06 and 2A05).

If available evidence indicates that the student is ready for graduation (2Q07), the graduation counselor is so informed (2A07). He double checks the student's records (2A08). Occasionally he may find that the student still has a requirement to meet and he will then send his record back for re-registration (2A10). Usually the counselor determines that the student has met all requirements (2Q11) and forwards appropriate information to the student (2A12) and to the Commencement Committee (2A13).

Discussion

In the Continuous Progress School, academic testing, existing as an almost independent function with students taking tests at their request, is scarcely recognizable as the same function we have come to know in our typical schools.

The process of concluding a unit, where the student may proceed in any of a number of directions, almost independently of other student program, is certainly different.

The help function, often initiated by a subsystem of the IPC, bears little relationship to the supervised study we know so well.

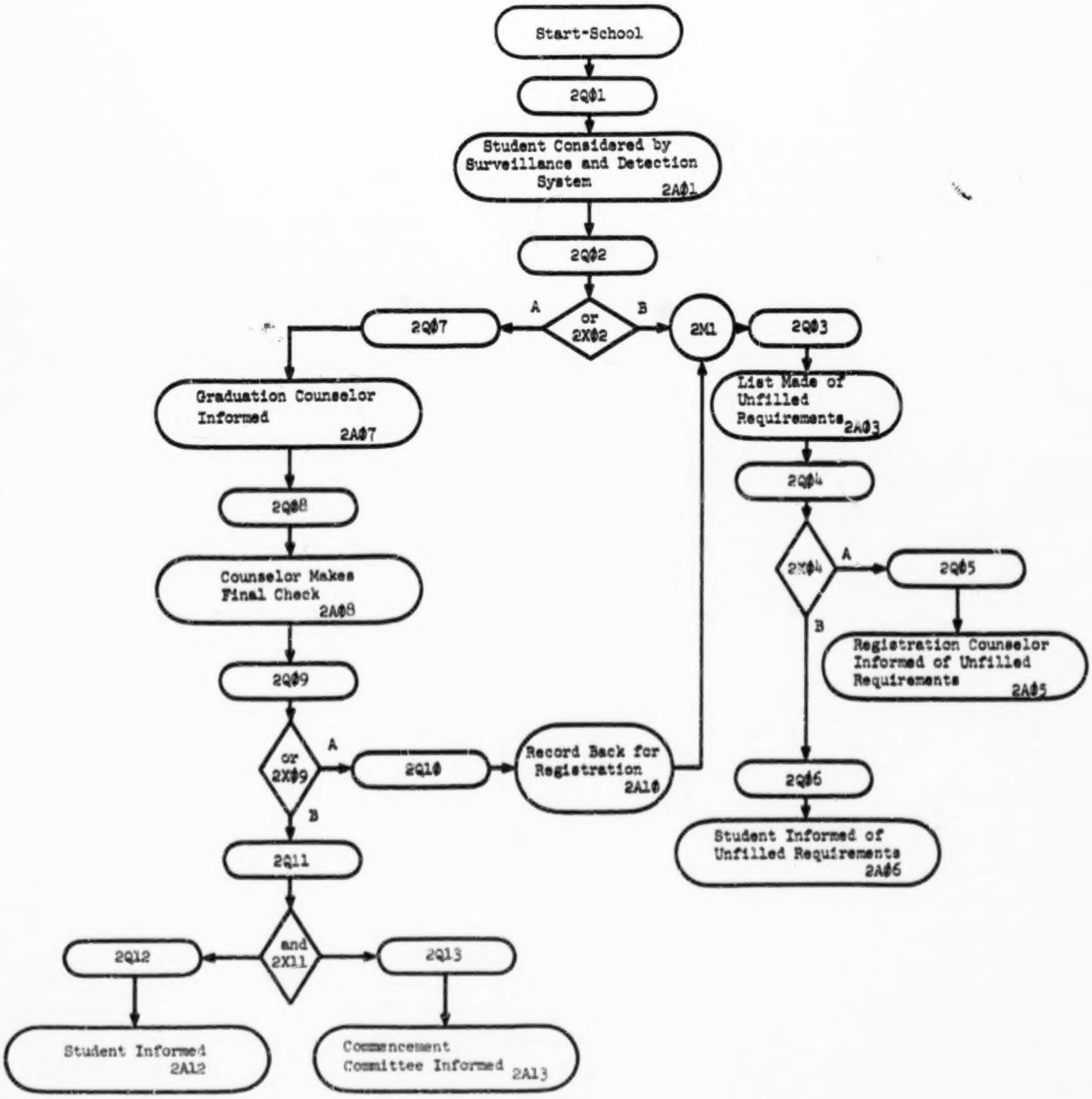

Start-School
2Q01
Student Considered by Surveillance and Detection System 2A01
2Q02
A
or 2X02
B
2M1
2Q07
Graduation Counselor Informed 2A07
2Q08
Counselor Makes Final Check 2A08
2Q09
or 2X09
A
B
2Q10
Record Back for Registration 2A10
2Q11
and 2X11
2Q12
Student Informed 2A12
2Q13
Commencement Committee Informed 2A13
2Q03
List Made of Unfilled Requirements 2A03
2Q04
2X04
A
B
2Q05
Registration Counselor Informed of Unfilled Requirements 2A05
2Q06
Student Informed of Unfilled Requirements 2A06

Figure 25. Surveillance and Detection Examination for Graduation

And, finally, preparation for graduation is an individual matter in the Continuous Progress School. A given student may be the only one ready to finish at a particular time.

In this interim report, we have presented a partial description of a Continuous Progress School--a school which is currently largely hypothetical in nature. Because a complete Continuous Progress School does not exist, much of the so-called "description" presented is actually design. This will also characterize other documents in this particular series.

Future documents will describe additional sample courses; the various functions of the IPC, the Counseling Service, and the Materials Center; and, will discuss in detail the interrelationships of these services and functions.